WINTER EDITION 1930

AMAZING STORIES QUARTERLY

White Lily

By

John Taine

Author of

"The Purple Sapphire,"

"The Gold Tooth", etc.

Other Scientifiction

By

A. Hyatt Verrill

Aladra Septama

Louise Rice

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VOL. 3 NO. 1
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Quarterly

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Our Cover

This issue depicts a scene from the story entitled, "Tani of Ekkis," by Aladra Septama, in which the Ekkisians are seen sending their "line" out for the drifting sphere which they find in interstellar space between Jupiter and their new landing place.

January 20, 1930

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Do We Need More Scientists?

By *Alexander M. Phillips*

A YOUNG aeronautical engineer recently informed me that such a question was asinine. Today we need more scientists than ever before, said this young man, divinely inspired by his own vocation. Continuing, he declared aeronautics to be in its infancy, and that much scientific research must be done in this field alone ere it reached its maturity. Remembering this to be but one of a vast array of new, science-born occupations of humanity, each requiring an equal amount of attention, he concluded, it is apparent that we need more scientists and always will.

Now at first glance this argument seems exceptionally sound, but consider science in the light of its present day situation, a situation not generally appreciated, however widespread the popular interest.

At one time the advance of human knowledge depended upon more or less isolated individuals, Mendel in his monkish garden, Newton and his apple, Fulton, Morse and a hundred other inventors, working alone. Today science, like everything else, is being commercialized; invention is becoming a systematized industry. Rich and powerful corporations, Westinghouse, for example, maintain vast laboratories for no other purpose than for research work. In these laboratories, invention is given every inducement, is going forward on a scale never known before. In every field of endeavor, the same thing is true. Every industry has scientists by the score, not concerned with the humdrum, commonplace machinery of the industry supporting them, but merely with perfection, with invention. Today we can predict inventions before we actually have them—television, for example. And among the laboratory workers there are other predictions which would seem wild even to this sensation-jaded society.

But of predictions, the most important seems the least emphasized. Few consider what is, after all, the vital question, namely, the consequences and effects, of these oncoming inventions and discoveries. Will they result in the betterment or detriment of civilization? The answer is, of course, that it depends on their application. That application, however, should not be left to chance, as is the tendency, for commercialized science is interested only indirectly in the welfare of the state; its primary objective is dividends. A prophetic example of such misapplied, exploited science was recently presented in the form of a play. The play—R. U. R. (Rossum's Universal Robots) by Karl Capek, produced by the Theatre Guild of New York—a triumph of contemporary scientifiction, is concerned with the invention of robots, or mechanical men, which are manufactured and sold by a company formed by the inventor's son. In spite of manifest warnings, the manufacture of the robots is carried to enormous proportions and disaster ensues. The ultimate result is a revolt of the robots and the destruction of humanity. This may, of course, be fantastic, but such fiction suggests the possibility of danger in a blind trust in the unthinking use of our coming inventions. And that is the supreme duty and achievement of scientifiction; to make people aware of the possibilities of misdirected science, commercialized with no thought of anything save dividends. In its conjectures, and in its offer of possibilities, scientifiction stirs man to take into consideration the road he will follow, and not go blindly forward.

We do not need more scientists, but more men to direct the sane and beneficent application of inventions and discoveries. Unfortunately, political and social sciences are far behind the natural and technical ones, and are constantly receiving severe jolts in consequence. Our attempts at world peace are a belated recognition of the fact that science has made war at best suicidal.

It is, therefore, a cardinal necessity that society be induced to determine, as far as is possible, the best application of these mighty forces that are now or shortly will be thrust into its hands. Our schools teach science and produce quite satisfactorily our professional and technical workers, but our schools do not suggest or conjecture future sociological developments. They are not concerned with them. It remains for the average man to formulate his own opinion concerning such developments, and, in presenting well-founded and thoughtful predictions of such developments, scientifiction lends its greatest aid to society, for, in the last analysis, it is the average man, the mass of humanity, which determines the course to be pursued.

It may, therefore, be seen that the most important service of scientifiction is not the dissemination of scientific knowledge, but rather to nurture a conception of the possibilities, both good and evil, of science, on which hangs the future of humanity.

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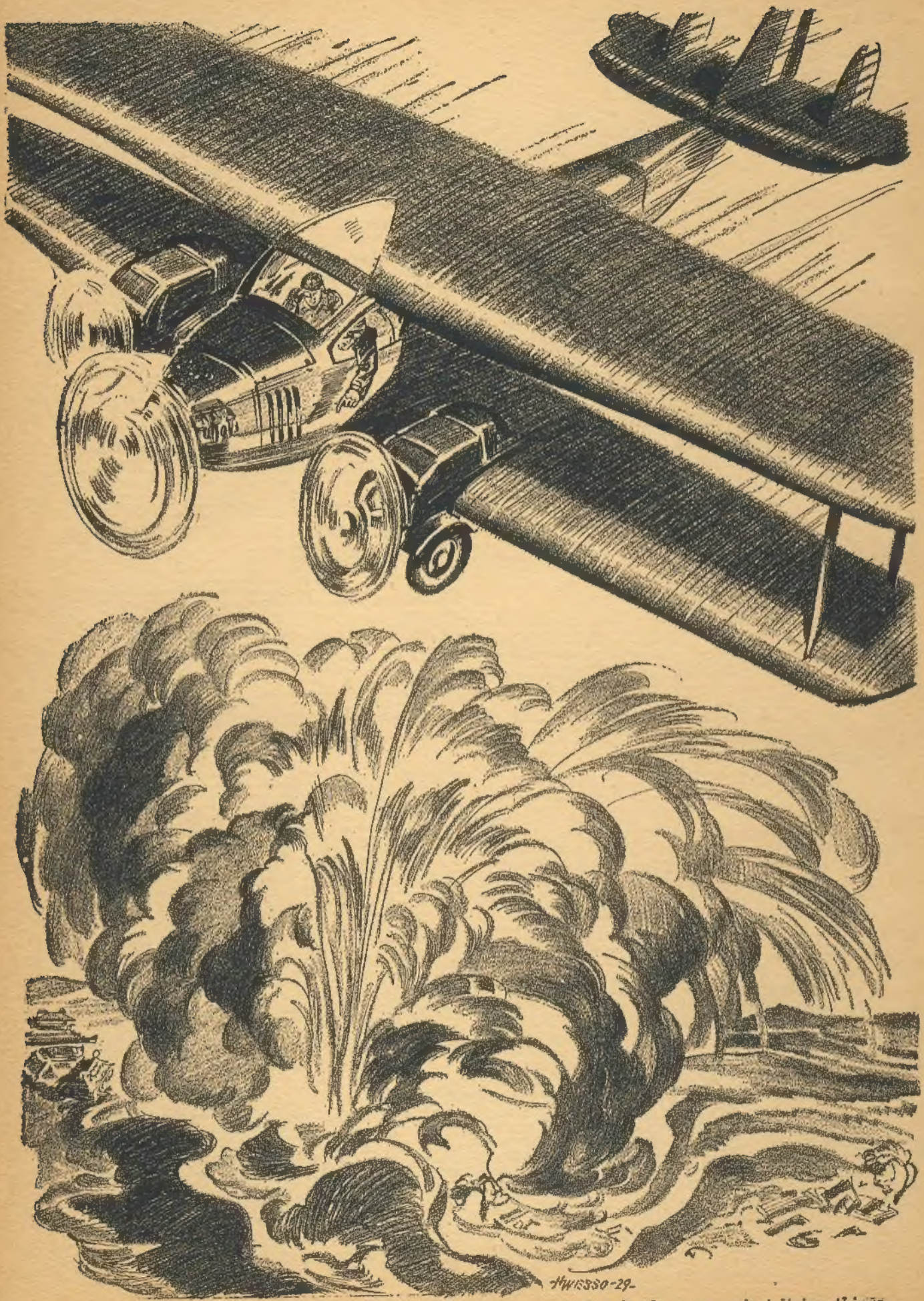


Just as the aviators flew over the pass, nature fired her second shot in the war against living things.

White Lily

By John Taine

Author of: "The Purple Sapphire," "The Gold Tooth," and Various Scientific Papers

ALTHOUGH "John Taine" is a new name among our growing list of good authors, he will probably need no introduction to a great number of our readers. His scientific fiction novels, "The Purple Sapphire," "The Gold Tooth," and "The Greatest Adventure," have been rated, by lovers of this type of literature, as being equal to A. Merritt's story, "The Moon Pool." Until now it was impossible for Mr. Taine to submit any of his manuscripts to AMAZING STORIES *on account of his contract with his publishers. We are very glad to be able to give you "White Lily," another full-length novel of scientific fiction, complete in this issue. Besides writing novels based on science, Mr. Taine has also written several scientific papers of considerable importance, for he is a scientist of no mean ability and reputation. In this particular story, the author deals with the chemistry of dyes and what an accidental combination of certain dyes might result in. Like A. Merritt, Mr. Taine realizes the importance of character study, and like him also our new author has an almost uncanny ability for drawing character pictures. We know you will anticipate, with us, seeing more creations from this well-known author.*

Illustrated by WESSO

Part I—Bunglers

CHAPTER I

Foundered

SOMETHING was moving about the house. It was not alive, nor was it being propelled. Yet it moved. Such was the flesh raising impression Mrs. Lane got first as she started up in bed and groped for the electric lamp. Her fingers moved without feeling over the small table by the head of the bed, upset a tumbler of water, and found nothing. The house was as still as the crypt of an unviolated pyramid, and as dark.

Failing to find the lamp, Mrs. Lane remembered with ghastly exactness where she had left it. Too tired to read that night before going to sleep, as was her custom during her husband's numerous absences on duty, she had left the lamp on the dressing table by the door, a good ten feet from the bed.

Should she prove that she was a soldier's wife by getting out of bed and turning on the light, or would it be more prudent to acknowledge that she was just an extremely frightened young woman, and bury her head under the pillow? Instinctively she breathed her husband's name, "Bob!" as if her extreme terror could pierce a hundred miles of darkness and recall instantly her natural protector.

Captain Robert Lane, asleep on the U. S. transport *Sheridan* rushing him and his marines to China, dreamed neither of his wife nor of his four-year-old son, but of legions of revolutionary Chinese bent on making Shanghai interesting for tourists. His wife and son were safe in Los Angeles. Why should they visit him in sleep? He and his machine guns, his leathernecks and their ugly steel tanks, had a stiff enough job ahead of them to keep the international peace, without worrying about any trivial domestic explosions that might brew in their absence. A cruel Chinese face without head or body behind it swam like a saffron bladder toward the captain's; a pair of dead eyes fastened with cold hatred upon his own; the slit that was a mouth in the yellow, floating thing opened as if to spit a curse, and Bob Lane turned over with a groan, his nightmare broken, but not by his young wife's horror of the clammy darkness that clung to her like a shroud.

Why had the black silence of her bedroom suddenly taken on an unearthly chill? Surely the air was drifting slowly over the bed, and flowing silently into the other room where her son slept in his cot.

"I must see! I must see!" Mrs. Lane muttered to herself, not daring to put her foot to the floor and slip out of bed. "I'm not a coward." She spoke the words aloud, as if challenging the sooty cold to deny an obvious truth. Then an impersonal being, a passionless embodiment of the primitive, unaging logic of things material, spoke with the terrified woman's voice. "There is something in that room," it whispered, "that is neither dead nor living. It is not a spirit, for it never breathed. I know this is true, because I feel it. Whatever is in

that room is trying to live, but does not yet know how." Mrs. Lane recovered her mental balance. "Nonsense!" she commented tersely, but without conviction.

The voice that had spoken was the forgotten danger signal of an all but eradicated instinct, so early rooted in the very tissues of life that its existence has passed unsuspected for ages. When the first uncouth parodies of living things took shape in the primeval slime, that same voice uttered its already ancient warning to the crystals and colloids that blundered their slow way toward life and evolution. Age after age that secular fear had whispered, to remind the nascent races of plants and animals how precarious was their grasp upon the fleeting dream called life, and how insecure their temporary dominion over death.

"It is an accident, no more, that you, not I, have life," the nameless instinct seemed to whisper, speaking for the uncreated lives behind the fear; "yet, in the end, my kind shall destroy your kind."

Mrs. Lane had at last recovered her courage. "I shall find my slippers and see what it is," she declared, making no move to carry out her intention.

"Mother! Mother!"

The terrified scream of Young Tom cut through her indecision like a razor. Instinct shot Mrs. Lane out of bed, through the icy darkness, into her small son's room. Isabel Lane was twenty-five, healthy and supple. She had not tarried over her slippers. Whatever might be in her boy's room, inhuman monster or mere burglar, might expect no more than swift and painful justice from her tense fingers.

"What is it? Oh——!"

Before she could switch on the electric light, it—whatever it may have been—had happened, appallingly, horribly. There was a crash, a multiplied, incredible crash, of falling, splintering glass, as if a massive old-fashioned ballroom chandelier had shattered itself on the floor. That was all. Not even a subsiding tinkle of fragment on broken fragment lent coherence to the insane dream. There was no chandelier or gaudier hanging abomination of glass in the house, much less in the boy's bedroom.

She snapped on the light. Was it all a nightmare? Then why had her son screamed, in the utter extremity of unnatural terror, and why was he now crying so lustily? She would not believe her dazed eyes. On the smooth oak floor she saw absolutely nothing, not even a trace of impalpable dust. And yet, with her own ears, she had heard the thing—whatever it may have been—fall. Not only had she heard it crash to destruction; the sound of its sudden dissolution was but the momentary echo of a definite, prolonged and terrible death. The thing, now dead and invisible, had gone out in agony. Only its pain lingered.

The boy, crying in her arms, could tell her nothing. "I'm afwaid, I'm afwaid," was all he could say to express an emotion which it might have baffled the most subtle of psychologists to analyze. The fear, which chilled him no less than his mother, was older than instinct, more ancient than the human race. The insentient cells of his young body, the inert minerals of his bones and the traces of iron in his blood had answered to the immemorial fear which all living beings experienced when first they gained, by a hazardous survival, the right to live. That right was now, after unnumbered millions of years, being challenged by a forgotten enemy, whose defeat in the beginning of creative time made the miracle of life an unexplained reality.

Still but half awake, in spite of the sudden shock to her nerves, Mrs. Lane had a cold, clear knowledge that the vanished anomaly—she did not call it this, because she was too dazed, nor did she account for her crystal intuition—had perished in its first, infantile attempt to walk. A subdued, all but inaudible sound of stealthy motion stole back through the silence of her memory, and she seemed to recall that the darkness before the crash had not been a dead nothing, but a stifled clamor of pain and abortive movements. The tentative, almost forgotten sounds of the motion of the thing, before it crashed and dissolved into nothing, were strangely like those of a baby venturing its first steps.

ALL of these impressions were on a deeper level than that of memory or intuition. They were immediate knowledge, such as mystics claim to experience, conveyed directly from one material thing to another. Mind did not speak to mind, but matter to matter. That silent message of fear in the night was more ancient than any mind. What misshapen mistake of time had found its way up through the darkness of forgotten ages, only to blunder in its first crude movements to an agonized death, in search of the light it could not reach? For the thing suffered an equivalent of pain, although it had no mind; the intensity of its agony still congealed the silent air and froze in the memory of its end. That also was immediate experience, a thing not known or sensed, but lived, from one dead atom to another. Whose careless head had flung back the bolts shutting off this half-created thing from the life it dumbly coveted?

Mrs. Lane, deciding to consider the incident a nightmare, although fast within her bones she felt that it had been singularly real, carried the boy back to her own bed and soon had him asleep. She herself could not sleep. To establish her courage she switched off the lamp, now restored to its usual place on the table by her bed, and debated whether she should get out in the dark to put the lamp back upon the dresser, just to prove conclusively that she was not afraid. Prudence conquered, and she cuddled up to her son. There might be another nightmare—she carefully avoided giving the disturber of her sleep any more tangible designation—in the house, and she did not wish to be unprepared for emergencies. The sense of a nameless fear, and with it the unaccountable chill, had definitely departed, as if the cause of the "nightmare" were indeed dead and less than dust.

Shortly before daybreak she began to doze off. How long she lost touch with the world of living things, Mrs. Lane cannot guess, but she imagines it was less than three-quarters of an hour. She awoke with a start, feeling that she was about to be strangled. A faint but unmistakable odor of corruption tainted the air. A brilliant oblong of sunlight on the floor of her boy's room at once caught her eye through the door which she had left wide open. Tom was fast asleep at her side, apparently in perfect health, although he breathed somewhat loudly. Instantly alert, his mother noticed in almost the same glance that the patch of sunlight shone with a peculiar brilliance, and that her boy's upper lip, where the breath from his nostrils played over it, was discolored a distinct yellow. Her first thought, although she could give no logical reason for it, was that the kitchen gas range was aleak and filling the house with deadly carbon monoxide.

Not stopping to verify any leaks, she rushed out of doors with Tom. Then she returned to fling open all the doors and windows of the bungalow. Everywhere that faint breath of decay poisoned the air, most noticeably in those rooms brightened by the early morning sun, barely perceptible in those where the sun had not yet penetrated, and just distinguishable in the dark closets.

It was still but a few minutes after sunrise. Moreover, it was a Sunday morning—Easter Sunday at that.

It was out of the question to call a plumber or a man from the gas company to examine the range. Mrs. Lane, resourceful as are most women whose husbands must be away from home half of their lives, took the Fire Department into her confidence and appealed for help. The man on duty yawning at the other end of the wire promised to send two men immediately. While the help was on its way, Mrs. Lane had time to get Tom and herself partially but presentably dressed.

The two firemen who came to render first aid were skeptical, not to say cynical. They nosed about with a sophisticated air, found nothing wrong, and said so plainly.

"Last night the first your husband was away?" one of them asked to corroborate Mrs. Lane's story as she had told it.

She acknowledged that it was, but added that being alone was nothing unusual in the life of an army officer's wife.

"You've got a fit of nerves, that's all," the fireman assured her. "Get one of the neighbor women to stay with you tomorrow night. There's no gas leaking here."

"Very well," she replied, feeling a little foolish. Then suddenly she experienced a sharp sense of danger, and decided to tell the men all about the "nightmare," which till now she had not mentioned. The firemen listened respectfully, with not more grinning than might pass unrebuked. But when the agitated young mother concluded her recital with a frankly feminine appeal that one of the men look under the cot in her boy's room, they burst into a guffaw.

"All right, lady," they agreed, "we're game."

When they saw the cot, standing about three feet high, with a rare Mexican valance of woven horsehair concealing its legs, they roared. The thought that any burglar or other beast of prey could secrete himself successfully under a baby's bed proved too much for their sense of humor. Nevertheless they had promised to rescue a distressed mother, and they now stuck like firemen to their word. One on either side they got down on all fours and poked their heads under the hanging valance, still gurgling like young bulls with repressed mirth. Then suddenly they collapsed and stiffened. Mrs. Lane dragged their unconscious bodies out to the veranda and telephoned for a doctor.

The men recovered before the doctor arrived.

"What hit me, Joe?"

"What hit *me*?" his companion countered. "Did you get it, too?"

"I sure did. Say, lady, I guess you were right about the gas. It must still be hanging about the floor."

"But you said all the fixtures are in perfect shape," Mrs. Lane demurred. "It can't be the gas."

"What was there under that kid's bed, then?" one of the men demanded suspiciously. "I ain't knocked clean out by nothing."

"There was nothing under the cot that I know of. Unless," she added as an afterthought, "you count an egg."

"An egg? What kind of an egg?"

"Just an egg—an Easter egg. I hid one of the dozen we colored yesterday under my boy's cot, for him to find this morning."

"Oh, so it's just an Easter egg breakfast you've invited us to?" the fireman queried sarcastically. "It struck Joe and me like a bootlegger's picnic. What brand of eggs do you use in your business, anyway?"

"Hens' eggs, of course. Did you notice if the green one was under the cot?"

"The green one!" Joe echoed disgustedly. "Say, what are you handing us? I've a good notion to call a cop."

Joe was interrupted by the arrival of the doctor.

"You are too late, fortunately," Mrs. Lane explained. "The men are better."

IN answer to the doctor's queries, Mrs. Lane and the firemen succeeded in giving him a confused impression of a wild Saturday night party unduly prolonged into Easter Sunday. Although too suave a gentleman to express his suspicions openly on so delicate a matter, the doctor privately diagnosed the trouble as a mild case of alcoholism. Still, he admitted to himself, Mrs. Lane looked all right; and the firemen exhaled no telltale odor."

"Perhaps I had better see for myself what is under your boy's bed," he suggested, with just the right inflection to indicate that he suspected Mrs. Lane of hysteria.

"Watch him get his," Joe whispered.

"Is the green egg there?" Mrs. Lane inquired expectantly, as the doctor lifted the horsehair valance to peer under the cot. "Why," she exclaimed to herself, "what's become of the floor mat?"

"Green egg?" the doctor echoed incredulously in a dazed voice. "You——."

Then he too collapsed. When he revived in the cool air of the veranda, he was somewhat dazed and quite crestfallen.

"There must be gas on the floor," he declared. "Is there a connection for a heater in that room?"

The firemen assured him that there was not. As experts, they agreed that escaping gas had nothing to do with the case.

"Did you see the green egg?" Mrs. Lane persisted. She had an obscure, half-formed intuition, which she would not have trusted to words for any bribe, that some evil thing had hatched out of that innocent looking Easter egg in the night, and was now polluting the clean morning air with its unholy, nocturnal exhalations.

"What green egg?" the doctor demanded, consciously hearing of its existence for the first time.

Mrs. Lane explained in detail. Intuition, mother instinct, or whatever we may choose to call supersense, prompted her to be explicit. The egg, she felt, was not so innocent as most eggs usually are. But she did not confide her suspicions to the three men. As yet her doubts were too nebulous to be taken seriously.

"Just an ordinary hen egg?" the doctor quizzed with a disappointed air when she finished her story. "Sure it wasn't a bad one?"

"It may have been," she admitted. "You see, it was a storage egg. The other eleven that we dyed were guaranteed fresh laid."

"Ah!" the doctor exclaimed, brightening. "That explains this mysterious odor that you say you noticed."

"Odor, nothing," Joe interjected decisively. "Did you ever see three healthy men knocked out by one bad egg?"

"But you say it isn't gas," the doctor agreed. "Suppose we have a look at that egg—if there is one." He rose, deliberately cut off a long pole of green bamboo from the clump by the steps, and proceeded to Tom's bedroom. Half ashamed of their expectant curiosity, the three watched the doctor fish under the cot for the guilty egg. Standing bolt upright as he cautiously explored the floor with the pole, the doctor took no chances of encountering a second gas attack. Presently his persistence was rewarded. Out trundled a beautiful, grass-green Easter egg.

"Don't touch it!" he ordered. "The thing may be poisoned. I don't half like its color. Is there a shovel about the place?"

Mrs. Lane fetched the garden shovel, and the doctor, accompanied by the gaping firemen, gingerly bore the suspected egg out of doors.

As he tipped the egg off the shovel, a fourth spectator joined the charmed circle. This was Hoot, the Lanes' enormous yellow family cat. From what region of space he now materialized himself is not known; he just appeared, as he always did, when interesting events were about to happen.

"Don't let him sniff it!" Mrs. Lane implored.

But the doctor, acting in the interests of impartial science, gently restrained her and let curiosity earn its reward. His own curiosity was piqued. The firemen were content to permit the doctor to handle the case. Like Hoot and the doctor they too were now imbued with the scientific spirit.

Hoot's elaborate caution in attacking the problem availed him nothing. First one testing paw patted the egg and found it docile, then the other. It was safe, according to the cat's expert judgment, and would not bite him. Very delicately he elongated his neck and sniffed the virulent looking green shell. He received worse than a bite. With a dismal, croaking howl, as if he were about to be deathly sick, he staggered groggily away, to sink down in a heap at his mistress' feet.

"Poor Hoot," Mrs. Lane exclaimed, picking up the limp form. "Never mind; you'll soon recover—the doctor and the firemen did. Tom! Keep away from that egg."

She rescued her son just as his four-year-old curiosity was about to overmaster him. One of the practical firemen seized the shovel.

"Don't smash it!" the doctor snapped, knocking the poised shovel aside. "That's the most interesting egg in California. Poisoned, beyond a doubt." A wavering blotch of sunlight played over the villainous egg as the leaves of the walnut danced in the morning breeze, and the doctor continued his theorizing. "Look at that vile color. Did you ever see so hideous a green? Something new in the way of poisonous dyes, I'll wager. It isn't a copper green, nor yet an arsenic. I'm going to have it analyzed by the city chemist."

"Yeh," Joe agreed, "it's sure poisoned. Well, we've got to be getting back to the station. Good morning, everybody."

The doctor stood doubtfully regarding the egg. How pick it up safely?

"Of course you will destroy the rest of the eggs you dyed?" he suggested.

Mrs. Lane nodded. "Have you any idea what kind of poison it is?"

"It acts like concentrated carbon monoxide *plus* hydrocyanic acid, but I doubt whether it is. Otherwise that cat would probably be dead. And he's not."

As if to confirm the doctor's verdict, the supine Hoot made a heroic effort to throw off his stupor. The huge cat rolled over in his mistress' arms and deftly wriggled his way to freedom.

"Keep away from that egg!" the doctor warned, as Hoot made a beeline for the enemy. "Isn't once enough?"

Before they could catch him, Hoot was gratifying his instinct for scientific research. The full, strong sunlight had now been bathing the bright green egg for several minutes. The cat sniffed once, tentatively, then again, thoroughly. Nothing happened. With an air of intense disappointment the enormous Hoot turned his back on the contemptible enemy that was too proud to fight, and stalked away on his morning business.

FOR a moment the poison hypothesis seemed to have exploded. Then the doctor hit upon the obvious explanation. His simple theory was in perfect accord with sound common sense. Its one defect, not revealed until some weeks later, was that it was quite wrong. This, however, is nothing against it. A physical theory that is not smashed nowadays within ninety days survives merely because it is not worth smashing. The egg, he declared, had obviously lost its evil cunning because the poisonous principle of the green dye, being exceedingly volatile at blood heat, had all evaporated in the full sunlight. It was as incorrect as it was plausible. Before carrying off the egg to be analyzed for traces of poison, the doctor obtained its full history, so far as known, from Mrs. Lane.

The essential facts are these. Captain Lane and his wife spent their last morning together doing odd jobs about the house and dyeing their son Tom's Easter eggs. As Tom insisted that he could dispose of a full twelve, Captain Lane went out and bought a dozen fresh eggs from a neighbor, instead of using those already in the house. Those which they had on hand were preserved in water glass—the liquid silicate commonly used by housewives for the purpose. Although these might be considered fresh, at least theoretically, the Lanes decided to play no pranks on a baby's stomach, and got an honest dozen. The Easter dyes they bought at the corner grocery store. There was no reason to suspect anything wrong with the colors, as they were a standard brand, guaranteed harmless to man or animal.

All went well till they came to the eleventh egg. Captain Lane, who was doing the dyeing, not being very skillful in handling such fragile things as eggs, tried to be too delicate with his technique. As a result there was a casualty. The eleventh egg eluded his grasp and committed suicide on the tiles of the kitchen floor. Young Tom began to howl. To a child's discerning ear there is a golden magic in the words "a dozen Easter eggs," which is hopelessly tarnished if eleven, or even twelve, be substituted for the mysterious dozen. Argument, reason, exhortation to be a man and not a crybaby, all failed. There must be one dozen, no more, no less. To pacify their clamorous son the Lanes replaced the ruined egg by one "just as good"—although it wasn't—from the crock of waterglass, with the compromise that this egg, the eleventh, was not to be devoured like the rest, but merely admired. So that there should be no mistake about the identity of the sophisticated egg, Captain Lane mixed a special dye for its identification. From equal parts of sky blue and sunflower yellow he brewed a dazzling, virulent golden green that shrieked. Tom prized this egg above all the others, and insisted that his mother "hide" it under his cot, so that he should be sure to find it before she got up.

During all these ceremonies the captain of course got himself rather messy. By the time the job was finished he was more gorgeous than a rainbow. In fishing the substitute egg out of the waterglass he managed to splash his army shoes, his tunic, his face, and his arms up to the elbows with the slithering mess. It took his wife the best part of an hour to get him and his uniform clean enough to pass inspection.

If the doctor's theory of poison had any truth in it, Captain Lane was a pretty dangerous enemy by the time his wife was through with sponging him and his clothes, and she herself was not entirely innocuous. But, as appeared later, the doctor's theory was too simple to be quite right. Nevertheless, a truly cautious health officer from a wiser planet might reasonably have quarantined the whole family for at least five years. And the same experienced officer, knowing more about life in general than do we earth dwellers in our own narrow range, would undoubtedly have forbidden Captain Lane to change his shirt at the last moment, because one of the spots on the left sleeve persistently

defied soap and water, hastily cram the discarded shirt into his kit, and jump into a taxi on the first lap of the long journey to Shanghai.

Having satisfied himself that he had all the facts in the case, the doctor left, carrying with him the guilty egg. Only by promising to send young Tom a bigger and greener one within an hour was the doctor permitted to bear off his booty. He felt confident that the chemist's analysis would disclose traces of some complicated poison in the dye which would demote the guilty egg from its interesting status as an inexplicable mystery, and reveal it as nothing more than a rather common accident.

It may be recorded here that the good doctor was bitterly disappointed. The following afternoon he received the chemist's report. The green dye was quite harmless; a child might swallow a quart of it and ask for more, if he happened to like the stuff. Rather ashamed of his part in the affair he tried to doubt that he and the two firemen had suffered more than an attack of nerves in sympathy with Mrs. Lane. Although he never quite succeeded, he wisely decided to forget the incident for the sake of his professional reputation.

AFTER church on that fateful Easter morning, Mrs. Lane and Tom left Los Angeles with some friends for a three days' auto trip to the desert to see the wild flowers. The winter had been warm and wet, so the display promised to be more than usually splendid.

As there are neither telephones nor telegraph stations in the desert, Mrs. Lane missed the first report of the tragedy that made America wish it had kept out of China's private affairs. It is perhaps just as well that she did not hear the first and worst report. Later news made the tragedy more bearable—for a few.

At eleven o'clock in the evening of Easter Sunday, Pacific time, the country received its first shock.

"Extra! Extra! All about the disaster at sea," the newsboys piped from San Francisco to Boston. "Transport *Sheridan* founders at sea. Read all about it! Great loss of life; read all about it; extra, extra!"

It was true. The *Sheridan* had foundered less than three hundred miles from Los Angeles, with nearly all hands, before her sister ship, the *Sherman*, could come to her aid. The one fact that seemed clear was that the tragedy had actually happened. In its details the disaster stood out alone, without precedent or parallel, one of the mysterious riddles of the sea. And this was but the first of a rapid sequence of apparently inexplicable mysteries that puzzled certain curious persons for weeks, until an unpractical dreamer verified his guess at the truth.

At first certain of the reports were received with open ridicule, as the too ambitious efforts of publicity seekers. This was true, in particular, of the strange tale told by the two "desert rats" who drifted into Los Angeles, half insane from what they had seen in the desert, two days after the *Sheridan* went down. It seems strange now that no one had sufficient imagination to link up these true but incredible reports into one simple chain of cause and effect. The fact is, however, that it required extraordinary penetration on the part of one keen-eyed old man to see what was as glaring as the sun.

CHAPTER II

What the Rats Saw

OF the entire human cargo of the *Sheridan* but sixteen men were saved. These included Captain Lane and three other commissioned officers whose quarters were far forward on the upper deck. At the time of the "wreck"—about nine p. m.—Captain Lane, fully dressed, and three lieutenants were playing bridge in his quarters. The transport sank stern first. The sixteen who escaped managed to launch one of the life rafts just as the ship foundered. In all, twenty men tugged at the raft to get it free of the plunging vessel before they all were hurled into the black water. Four perished in the desperate struggle to reach the raft before the suction of the sinking ship spun it like a chip in a millrace, making a boarding impossible. The wireless operator went down with his ship, after having summoned the *Sherman*, steaming through the night on her course, less than five miles to the east.

When the *Sherman* reached the scene of the wreck she found nothing but the raft with sixteen dazed men, drifting helplessly in a calm as placid as that of a mountain lake on a warm summer day. Among the survivors were two noncoms, who had been standing watch when the *Sheridan* foundered. Their depositions are the only account of what happened.

Their story is told in three words. "The ship burst."

That was all that cross-examination and a bluffing threat of court-martial could get out of them. Elaboration was not forthcoming. They stuck obstinately to their simple assertion of fact: without warning the *Sheridan* simply burst. Steel rivets in her plates cracked by thousands like the rattle of a battery of machine guns; the whole ship seemed suddenly to sit down in the water; she sank. There was no explosion, no smoke, no smell of burning. In fact, there was nothing beyond the indisputable fact that the *Sheridan*, steaming on her way as peacefully as a ferryboat, plunged to the bottom of the Pacific less than four minutes after the first rip of the rivets gave warning that the plates had burst asunder. Thirteen of the men who escaped were jolted from their bunks by the first wild plunge, picked themselves up, and scrambled for the clear deck, to fall over the first life raft. They launched it automatically, somehow, not knowing what they were doing or what was happening, except that the ship was going down in record time.

In response to a wirelessed request for orders, the *Sherman* absorbed the sixteen survivors into her own companies of marines and proceeded on her course to China, as if nothing had happened. Such is life in the army.

The families of the survivors were of course notified; the rest it was unnecessary to notify, except such as were entitled to widows' pensions. Captain Lane resumed his duties within eight hours, too dazed to be thankful for his escape or to make guesses concerning what had caused the inexplicable disaster. He had lost his kit, and had now only the uniform in which he stood. Not until he reached China did he fully recover his senses. What happened to him in China, with him an unwilling and unsuspecting spectator of the drama, all but made him lose his senses for good and all. But it happened with such devilish casualness at first, and with such an illusory appearance of being merely an unexpectedly interesting detail of his duty, that he completely missed the sinister point of the play until it was almost too late to divert its climax. In the meantime, while he and his men marched resolutely and unwittingly to meet their destiny, Mrs. Lane and Tom enjoyed the excitement nearer home, and old Jonathan Saxby, retired geologist, found much to interest him in the eccentric antics of the desert.

Just as the sun set on Easter Sunday, Mrs. Lane, Tom and their friends found the ideal camping place in the desert at which to spend the night. They had driven hard all the afternoon, and had now penetrated to the very heart of the desert. A sharp outcrop of limestone provided adequate shelter from the strong east winds which freshened as the sun dipped swiftly to the hori-

zon, and several acres of flat slabs suggested the ready means of improvising a camp kitchen. A thorough search of the chosen site confirmed the general opinion that it was still too early in the season for rattlesnakes, so the party set about preparing supper. Dead sage brush gave all the fuel necessary, and in half an hour Mrs. Lane had a hot meal ready. They dined by firelight before the moon rose, cleaned up, thrust the refuse into a cleft between two limestone slabs, made up their beds, and in ten minutes were fast asleep. The following morning, half an hour before sunrise, they were on their way farther into the desert to see the best of the early flowering cacti.

The California deserts are more than alluring mysteries to tempt holiday makers. They are heavily mineralized wastes that have trapped scores of prospectors for life. Before Mr. Ford put padded leather cushions and twenty miles an hour within reach of anyone with fifty dollars to spend for a second-hand car, the old-timer used to tramp the desert for weeks, from one spring or water hole to the next, leading by its halter his sole companion, the patient, long-eared burro. Occasionally two or three of these inveterate prospectors would travel together, sharing the hardships and playing poker for the winnings—if any; but the majority pegged along alone. Conversation, human companionship, having to think at every step what the other fellow wants, become intolerable bores when civilization is left behind. A couple of sides of bacon, enough flapjack flour, coffee, beans and salt to last a month or six weeks, a burro to pack the outfit, and the ideal prospector was complete. Most of them were sinewy, grizzled men, long past middle age, with stubby white beards stained by tobacco juice, their skins the rich brown of old mahogany. Many had tramped the desert for fifty years, and all believed that they should find King Solomon's mines before they dropped in their tracks, to become russet husks like dried frogs.

NOT one in twenty ever found anything of value in the desert. In the credulous cities, however, even the poorest prospector could always unearth at least one flush sucker—usually a stock broker or bond salesman, eager to put up two hundred dollars to grubstake the next jaunt in search of the mystical mines. As a rule the real old-timer was shrewd, sanguine, and superstitious beyond belief. When the Ford cars began skipping like sandfleas all over the desert, the genuine prospector passed them up with silent scorn, and stuck like a brother to his faithful, plodding burro that never ran out of gas or water, or got itself punctured on the cactus thorns.

Shortly after Mrs. Lane's friends had left their limestone camp ground, old Dan O'Brien puffed up to it leading his burro. Dan had not yet breakfasted. The flat slabs offered a luxurious table. As he approached the outcrop—which he knew to its last chunk from innumerable previous visits, his expert eye automatically estimated the number and social status of the departed visitors. He read their standing from the signs of their visit as accurately as if he were silently criticising them in a hotel lobby. Although they had cleaned up before quitting the place, they had left tracks and crumbs enough to broadcast their entire life history to a seasoned prospector like old Dan.

"This durned place is gettin' worse'n a city park," the pessimistic "rat" grunted, as he mixed his batter for his morning flapjacks.

Not a soul was in sight in the dazzling dawn, and no flivver bounded over the vast beds of purple and crimson, of lavender and yellow, that were the desert's springtime. Yet the poor old rat, true lover of holy solitude, believed that the place was defiled and no more private than a brawling, smelly city street. He felt sad. Not that he saw the astounding beauty of the desert aflame with exotic flowers, for old Dan probably had never seen a flower of any kind in his fifty-five years in the desert. His beauty was elsewhere—in his soul, in his taciturnity, and in his passionate desire to be alone. Why the devil, he pondered, couldn't these damned tourists stick to the paved highways?

His flapjacks tasted sour. Probably they were. But this was a spiritual sourness, quite distinct from the wholesome acidity to which long years of inefficiency had accustomed him, and to which he unconsciously looked forward with an eager zest. As he scoured the frying pan with clean, gritting sand, he gazed disconsolately out over the rolling billows of blinding colors that flowed in diminishing brilliance to the far, azure horizon, and wondered if anywhere on this earth there is still a desert that does not charm the idle. A tiny cloud of white alkali dust, five miles to the west, shone mistily in the blue haze. But this, thank Heaven, was not the nimbus of a flivver.

"That must be Jake," he muttered. "Guess I'll be sociable-like and wait."

Old Dan waited, as motionless as a lizard basking on a hot rock, till his venerable friend Jake plodded up with his burro. The desert rats had known one another intimately for at least forty years. In all that time they had exchanged, perhaps, a thousand words, no more. They were, in fact, boon companions.

"Morning," said Dan.

"Morning," Jake responded and sat down. He had long since breakfasted. He just sat, enjoying that luxury as only a man, who sees a chair or a really comfortable rock but once or twice a year, knows how to enjoy sitting. Conversation languished. Presently Dan got up to go to work. His "work" consisted in exploring every crevice of the outcrop for evidence of ores.

Although it was a geological improbability that the weathered limestone could contain gold, and although Dan O'Brien knew this fact as well as any professor of geology, he never neglected an opportunity of thoroughly prospecting those barren rocks. He must have examined every slab at least a hundred times in the past fifty years. The task always gave him something to do, and it also proved an inexhaustible source of "reports" to the successive generations of credulous city folk, who grubstaked old Dan's innumerable expeditions to the desert. In this respect the limestone outcrop was incomparably more profitable to Dan O'Brien than any gold mine he could possibly have discovered. For if he had been so unfortunate as to locate a real gold mine, some slick promoter would instantly have skinned him out of it.

Jake spent an equally busy day prospecting the gritty sand that abounded in the vicinity of the outcrop. It might be monazite, rich in osmium, cerium, iridium, thorium and half a dozen other precious metals that come small and sell big, but Jake knew perfectly well that this plebeian trash was not worth two cents a ton. He also was expected to "report," and the old chap wished to be as honest as the proprieties demanded.

Sunset found them tired, taciturn and happy. Without a word they adjourned to the oozing spring that seeped out of the limestone at its highest point on the north side. There they watered and fed their burros, prepared their respective rations of beans and bacon in silence, ate their suppers without conversation, either necessary or unnecessary, cleaned up, and turned in for the night. It was still indecently early according to city standards—barely seven o'clock.

If there were anything in the adage about "early to bed," Dan and Jake should have been practically im-

mortal, richer than Rockefeller and wiser than Solomon, for they never stayed up later than seven, and were always out of their blankets before three forty-five. On the whole, considering their almost perfect lives, one might say that the proverb is more true than false.

The moon was full that night. Through its soft radiance the subdued hues of the desert flowers shone mistily in vast beds, like the gardens of a dream, but the tired men were too old to care. Had they been awake to see, they would have noticed nothing but the promise of another scorching day in the serenity of that unearthly landscape. Old Dan stirred uneasily in his blankets, turned over with a muttered sigh, and sank into a deeper sleep. He was used to complete silence and absolute stillness at night. His rest had been disturbed, but as yet not sufficiently to break his iron slumber. Presently he lashed out pettishly with one leg, toward what he imagined was the general direction of Jake.

"Quit movin' around, will ye?" he quarreled in his sleep. But Jake was snoring softly, almost inaudibly, like an old and comfortable cat. He lay like a log, too tired to toss. Dan forgot his unrest, except subconsciously. The two slept on, weary to the bone.

The hobbled burros began to snort. Something that they did not like was moving in the desert, where it had no business to move. Keener of muscular sense than the men, they apprehended the unnatural movements long before the sleepers began to dream uneasily of charging cavalry and regiments of braying mules. As daintily as geisha girls the two burros teetered off in the moonlight, to seek safety at the south end of the outcrop. The men slept on.

Jake woke first. His wild yell brought Dan shaking to his feet.

"Earthquake!"

A steady, creeping noise, as of millions of growing things sending out their brittle tendrils over the desert floor, rustled through the night from the farther side of the limestone ridge, and the rock slabs vibrated rapidly in unison. The air was as cold as midwinter; a slow, icy breeze drifted past the terrified men toward the source of the sound. Then in rapid succession a series of appalling noises shattered the silence of the desert for a radius of twenty miles. First a terrific report, sharp as a pistol shot, whanged through the air. Instinctively the two men dropped flat on their faces to miss the imagined shell. Then two almost human screams from the strayed burros, the unmistakable sounds of terror from animals about to be done to death, froze the blood in the old men's hearts. Their beasts were being killed, inhumanly, unnaturally, and they were powerless to help. A terrified crashing drowned the last screams like the instant collapse of a cathedral of brittle glass on a pavement of steel. The inexplicable clamor ceased instantly, like a summer thunderclap, and only the steady, horrible creeping noise made the ghastly moonlight hideous.

Half paralyzed with fright the two desert rats reeled away to what they imagined was safety. Glancing back involuntarily Dan saw the pursuing "thing" almost upon him. For perhaps two seconds he halted in his tracks, stiff with fear, staring up at a shape which no man could name. It glistened in the moonlight like a colossal octopus fresh from the sea, its uncouth tentacles angular and jagged, shooting erratically in every direction, as if the thing were feeling its way into space. Unlike a living creature, this monster was all but transparent. Strange purples and greens pulsed and flickered through its inchoate mass like a subdued play of phosphorescent flames; a hundred dazzling pinnacles glittered like gigantic broken diamonds on the advancing crest, and from each of these points of light a score of zigzag, angular tentacles flashed into instant existence. The thing seemed not to move but to grow toward its prey. The main mass did not advance, but planted itself more firmly on the desert floor and conquered distance by lateral growth.

At the risk of his own sanity Jake turned back and dragged Dan away. Then they fled panting into the silence of the desert, blundering into cacti and stumbling over rattlesnake holes till they sank from utter exhaustion. They lay where they fell, huddled together in stupor till the endless night ended and the dawn broke.

THEY agreed that it was not a dream. But what of it? They were old, incurious men, used all their lives to nature at first hand, and not easily moved by the wonders that take the tourist's breath away. This, however, was new, beyond even their experience of earthquakes and the vagaries of desert storms. The thwarted curiosity of two long repressed lives suddenly burgeoned in those withered old hearts, and they became inquisitive to the point of sheer foolhardiness.

"Guess I'll go take a look," Dan remarked, picking himself up.

"Me, too," Jake seconded.

Without further parley they made their way back to the limestone ridge.

"Smell something?" Jake inquired as they drew near the first outcrop.

"It's the burros," Dan theorized.

"Couldn't smell like that after just a few hours. The sun's only been up a short spell." This was probably the longest speech Jake had ever made. Dan reproved him by reiterating his terse theory.

"See anything?" the loquacious Jake demanded as they drew near the exact spot of their mutual vision. Dan deemed a reply unnecessary. There was nothing to be seen.

They stood staring incredulously at the slabs of rock.

"There's no smell now," Dan ventured. Jake took his revenge by ignoring this superfluous remark. Unabashed, Dan chattered on like a vivacious flapper.

"Them scratches warn't there yesterday."

He indicated several fresh, deep grooves in the soft limestone. Jake nodded.

"The sage brush is all tramped down over yonder, too," he observed. "Let's find the burros."

Exploring the environs of the ledge they found abundant but inexplicable evidence of unaccountable doings in the night. In some places for a distance of fully a hundred yards from the ridge, the sage brush was flattened and broken as if a fleet of battle tanks had passed over it, and the alkali was pitted with huge pockets or scarred by short, deep furrows where some heavy object had apparently dragged itself forward a foot at a time. The furrows were comparatively rare, the pockets much more numerous. Although it was difficult to decipher this strange evidence, the old-timers silently agreed that some massive body had rested on the dirt, and by its sheer weight sank the impress of its irregularities deep into the dust and conglomerate.

At the inner edge of one of these devastated bays in the sagebrush they came upon the carcasses of the burros, or rather upon what was left of them. Two sickening smears of crimson, an indescribable tangle of lacerated flesh, as if the wretched animals had been cut to ribbons in a slicing machine, propounded their tragic riddle to the silent sky. The poor old desert rats almost wept. They had loved their burros. Their aged eyes stared pityingly at the shocking spectacle.

"There are no bones," Dan remarked, a note of superstitious terror creeping into his voice for the first time.

Half paralyzed with fright, the two desert rats reeled away to what they imagined was safety. Glancing back involuntarily Dan saw the pursuing "thing" almost upon him

"They were crushed," Jake hazarded.

"Where are the pieces?" Dan demanded.

"Don't know. Let's see."

Cold with a morbid fear, they set about their gruesome search. It was thorough. Not a splinter of bone and not a single tooth was found. The horny husks of eight hoofs, all but crushed out of recognition, lay in approximately the positions that might have been expected from the general appearance of the remains.

When the fact that the bones had vanished was finally established beyond any reasonable doubt, the shaken old men stood silently staring into one another's eyes. Neither dared to speak for fear of giving himself away. Their superstition was like the ordinary decent man's religion—an experience not to be mentioned in public. Each knew what the other was thinking, and each considered the other rather a fool for his thoughts. In silence they made their way back to the outcrop, to the spot where they had met the previous morning.

Here another freak of the night's orgies greeted their bewildered eyes. A gaping fissure five feet broad and about three hundred long parted the main body of the limestone into two irregular masses by a jagged chasm. It appeared as if the solid rock had been suddenly burst asunder by a deep-seated and violent explosion. The

snap of the parting rock undoubtedly was the "pistol shot" they heard before the obliterating crash sent them fleeing into the desert. Of what had caused that crash, like the smashing of a million bottles, they found not a trace. Yet it had seemed as real and vivid as the screams of the slaughtered burros.

Not being used to expressing themselves in speech, they acted. It was tacitly agreed that they should return at once to civilization and "report." As fast as their old legs could carry them they made for the desert highway, confident of hitching a lift from sightseers returning in their flivvers to Los Angeles.

Just before they flagged their chosen victim, Dan spoke, breaking the charmed silence of a six hours' strenuous hike through the broiling heat.

"We'll get our pictures in the paper," he prophesied with lickerish glee.

"Both of us," Dan agreed.

They did.

CHAPTER III

Saxby's Experiment

DAN and Jake had no difficulty in getting a sympathetic specialist from a Los Angeles paper to listen to their story. They made all the usual mistakes of the beginner in journalistic adventures and told the polite young fellow a great deal they did not know they had said. He promised to give them a good write-up. Technically he kept his word. The "story" was genuinely funny. The poor old desert rats did not know that the professional humorist of the United Press had been turned loose on them. With such a start as Jake and Dan gave him, the humorist romped his easy way to a classic of slapstick wit. The town roared; the rats cursed. So good was the story that it was syndicated. Within a week it had been read and enjoyed by twenty million intelligent human beings, not one of whom saw the point. It was not the laughing matter those twenty million readers thought it.

The disillusioned prospectors became notorious overnight in Los Angeles and its environs. An ambitious gentleman from Hollywood offered them a fabulous sum for a three months' tour in vaudeville. Dan and Jake were now thoroughly enraged. Their exact account had been laughed out of court. Now they burned with a righteous anger to vindicate themselves. They signed the contract. Being familiar from long experience with business methods of a certain kind, they insisted upon a fifty per cent cash payment in advance. It was well that they did. Their "act" was a complete flop. At the end of the week the gentleman from Hollywood was glad to send them back to the desert with his blessing and the fifty per cent.

It is rather remarkable that of all those who became familiar with the story, not one thought of verifying the details of the scratches on the limestone and the deaths of the burros. In preferring talk to the simple act of seeing, the twenty million only repeated on a small scale the dreary annals of the human race.

When Mrs. Lane returned to Los Angeles on the Thursday following Easter Sunday, she glanced over the headlines of one of the accumulated papers to see what had happened during her holiday in the desert. She did this hastily on the veranda, before she and Tom entered the cottage. The funny story of the two desert rats and their novel spree caught her eye—it was heavily featured. Skimming the lively skit she failed to catch its sinister meaning. It was too funny. She bundled up the papers and looked in the mail box.

"Well, Tom," she remarked, "we can't expect a letter from him yet, but let's see if there is one, just to be sure. Why! Here's a telegram."

She tore it open and took in the curt message at a glance, without comprehension.

"*Captain Lane proceeding safely to China on U. S. transport Sherman.*"

This consoling but mysterious message was dated at San Diego and signed by a staff officer of the U. S. Army. What could it mean? Mrs. Lane hastily entered the house, sent Tom away to bring back Hoot from a neighbor's, and began a systematic search of the newspapers. She soon found all she wanted.

"He's safe," she sighed. "That's all that matters."

She sat thinking in silence, wishing Bob were out of the army. As her mind roamed half dreaming over their happy past together and the doubtful months ahead, the subconscious part of her went busily to work on the rich, curious feast which she, unknowingly, had spread before it. The Easter Sunday "nightmare," the "bursting" of the *Sheridan*, the ludicrous yarn told by those imaginative old prospectors, all seemed curiously interlined, although strangely unfamiliar and individually incomprehensible. What was the silly phrase that humorous newspaper man had used in repeating Dan's story? "Bombarded by billions of beer bottles." The asinine alliteration almost analyzed the astonishing antics of the anomalies—this absurd rejoinder flashed through her mind. She came out of her daydream.

"That's curious," she said, not knowing exactly to what she referred. "I must read that bit about those prospectors again."

On this reading the badly distorted account cleared up with startling lucidity. Even that humorous genius had not succeeded in disguising the eerie truth beyond recognition. The crash which Jake and Dan had attempted in their halting way to describe must have been very similar, although on a much larger scale, to that which she and Tom had heard in his bedroom. Like her, the desert rats had failed to find any traces of broken glass. Yet, if the "bombardment" were not a bad dream but something more substantial, the old men should have found tons of shattered glass on the limestone. The strange coincidence between her dream and theirs took on an oppressive, evil significance. Mrs. Lane suddenly felt an overpowering desire for fresh air. She went out to the back garden to wait for Tom and Hoot. The old men, she recalled uneasily, had also reported a smell of decay that dissipated as the morning advanced. What could it all mean? The rock, they declared, had "burst." Suddenly, too, like the *Sheridan*. Again a coincidence, or was it more?

The injustice of the ridicule accorded those poor old men, who had done their humble best to tell the truth, however strange, made her pulse beat faster. Isabel Lane, like her husband, was a born fighter when the cause was a just one. Her indignation rose.

"I shall write to the editor," she declared, "and tell him exactly what I think of his lying paper."

She darted into the living room and dashed off a red hot protest to the editor. Unfortunately Isabel was so angry when she wrote the letter that she made it excruciatingly and unintentionally funny. It beat the professional's effort on behalf of Dan and Jake.

"There!" she said, slapping down the inoffensive two-cent stamp, "that will let him see he isn't as smart as he thinks he is." In the rash heat of her wrath she had given a short but complete account of her own experience of a "noise" on Easter Sunday, to prove that the desert rats were not suffering from delirium tremens as was hinted by the funny man. "I myself," she added, "never touch alcoholic beverages, and I am sure that my four-year-old son is not a drunkard. He heard it, too."

When the editor read Isabel's letter he sat speechless in an enchanted ecstasy. Finally he found words.

"Call up this woman," he directed his stenographer, "and offer her fifty a week for half a column a day. She's a pippin, a red-hot mama. Oh, boy!"

Isabel's response was an indignant No. She could spark for principle but not for lucre.

"May we print your letter, Mrs. Lane?"

"If you don't, you're cowards."

"Thank you, Mrs. Lane. You will find your letter on the front page tomorrow morning. Goodbye."

THE letter duly appeared, and the country enjoyed another laugh. This time, however, journalism did accomplish something useful. Isabel's letter was the essential link in a strong chain of evidence which, without it, might never have been closed. Undoubtedly old Jonathan Saxby could have got on without the letter, but its singular significance gave him a flying start of at least a week. This early start was extremely important; with it, he almost succeeded in wrecking Asia; without it, he might have stayed at home and wrecked the United States.

Jonathan Saxby, formerly professor of geology at the leading university in America, was now in his sixtieth year and at the apex of his keen, analytical powers. Although he was commonly known as "old" Saxby, he was elderly only in appearance—resembling Mr. Pickwick as that sage is usually portrayed in his later years. In mental agility he was about twenty-five. In physical endurance, according to his easily exhausted young colleagues, old Saxby beat the devil. He did not know what it was to feel tired, either in his laboratory study or on his summer rambles up precipices and over all but infinite wastes of drifting sand. He ate but once a day, but when he did dine, he depleted the commissary. In the matter of drink he was equally abstemious. Three bottles of wine, not too light, taken with his dinner, satisfied him for twenty-four hours.

When he retired from teaching, Saxby hesitated long between Italy and California as the perfect haven for old age. He could afford either, as he had made a huge pot of money as geological consultant for three of the luckiest oil corporations. These rewarded him amply. Old Saxby was no fool at business. At fifty-five he found himself with "all the world before him where to choose," and he chose California.

It was not without regret that Saxby abandoned the rosy dream of Italy. His strange hobby cast the deciding vote. Saxby was an inveterate and passionate collector. His collection was probably the weirdest that acquisitive man has ever made. It consisted of thousands of earthquakes, all neatly tabulated, classified, cross-indexed and resolved into their simplest harmonic components. To such a collector California offered obvious advantages over Italy—although California's notorious modesty might restrain her from bragging about it. Outside of Japan, possibly California does afford the collector of earthquakes the most efficient and best organized seismological service in the world. When old Saxby learned also that the California vineyardists retail a delicious, virginal blend of three grape juices at the price of one good song per forty-gallon cask, and that nature will do what is necessary for nothing if you merely pull the bung out of the cask and let it stand for three weeks, he hesitated no longer. He settled down in Los Angeles to spend the next sixty years of his life collecting earthquakes and eating one meal a day.

Old Saxby was a confirmed bachelor, in both theory and practice. He tolerated a fat old colored mammy as cook only because he almost never saw her. If Jemima had been so rash as to venture out of her own quarters into the master's presence, she would have been fired on the spot. His more intellectual wants were ministered to by a so-called secretary, usually a young Japanese, Chinese, or Filipino. The secretary's formal duties consisted in keeping the thousands of earthquakes straight in the filing cabinet, and in improving old Saxby's mind with quaintly frank and heathenish views on all Christian customs.

Saxby had hired Buddhists, Confucians, Taoists and plain infidels in his time, and once he had tried a Moslem. The last nearly proved his undoing. This swarthy young man was a brilliant geological chemist, an International Research Fellow, and just the collaborator Saxby needed at the time in his classic investigation of the basalts. He was obliged reluctantly to discharge this paragon of secretaries because the fiery zealot preached incessantly against the Christian vice of wine-bibbing, which to a Moslem is the filthiest of all habits. Old Saxby felt that if he kept the pest he must inevitably be reformed.

The present incumbent of this most desirable secretaryship in the world was young Mr. Yang, a Chinese Government student with his Ph.D. from Columbia. Yang also was a hybrid between geology and chemistry, but unlike the eloquent Moslem, he was the soul of circumspect discretion. Yang had but one fault; he obstinately maintained that old Saxby's topaz wine was not fit to drink when one could get the crystal clear, volatile Chinese gin. Saxby could not convert him.

It was but natural that old Saxby's dragnet method of fishing for earthquakes should haul up the Dan-Jake episode. In addition to receiving weekly reports from all the seismological stations of the world, Saxby subscribed to at least two clipping bureaus in each civilized country. These were instructed to comb the daily press for the slightest mention of anything even remotely resembling an earthquake. The clippers had their lists of key words, such as temblor, tremor, shake, quake, landslide, and a hundred others, by means of which they sifted the daily tons of facts and misinformation dumped upon a suffocating and helpless world.

Occasionally their gleanings drove old Saxby to profanity. Thus, at election time, he received under the caption of "landslide" several tons of clippings celebrating the latest victory of the invincible grand old party. Again, under "shakes" he was wont to be deluged with advertisements for ague cures, and once under "temblor," the bureau in Mexico City sent him minute instructions for the self treatment of an unmentionable weakness to which he had never been a slave. The Dan-Jake account was gathered in under the captions "shake," "tremble" and "crash." This wild yarn, Saxby decided, would bear further inspection. He instructed Yang to file it away in the incubator—the technical term for the cabinet containing reports of embryo earthquakes that might hatch out into vigorous, adult shakes. Yang was also to inspect the local press daily for further details.

THE extraordinary disturbance in the desert, if an earthquake at all, was of a new species. Old Saxby almost prayed that Dan and Jake might prove as truthful in the end as they now seemed not to be. The one piece of evidence in their account which might be of scientific value was the splitting of the limestone rock. That sounded like science, although it probably was only another lie. Before taking a jaunt out to the desert to see for himself, Saxby decided to wait for further details. There was one particularly suspicious circumstance about the whole alleged miracle. The extremely delicate Anderson-Smith seismographs at the Pasadena observatory had failed to record any trace of a disturbance on the night of the supposed event. Therefore, Saxby concluded, it was probably no more than an unusually interesting fake.

When the efficient Yang duly laid the clipping containing Isabel Lane's indignant letter before his employer, old Saxby rubbed his eyes and grunted.

"There's something in it. I'm going to call on this lady. You may dine without waiting for me this evening, Yang. I shall lock up the gin before I leave. And I shall take the key with me. So don't waste time hunting for it. Goodbye."

WHEN Mrs. Lane answered the door bell, she looked straight into the shrewd, questioning blue eyes of an elderly, carelessly-dressed man, whose loose alpaca suit bagged in every conceivable way in which clothes can, and whose hatless bald head blushed with a charming pink like a newly bathed baby's back. The rather rotund figure concealed the stocky, well-knit frame of a powerfully built man. In his thirties old Saxby was as strong as a draft horse; in his first sixties, although somewhat shrunk, he gave the impression of great muscular power and inexhaustible endurance. His bland, childlike smile as he gazed up into Isabel's eyes was wholly disarming. She took him for an itinerant mender of umbrellas.

"Thank you," she said, hoping to get rid of him as quickly as possible, "I have nothing today."

"Not even an earthquake, by any chance?" old Saxby suggested innocently.

"An earthquake? What on earth do you mean?"

"Why—ah—an earthquake, of course," Saxby replied as if it were the most natural thing in the world to ask for one. "You see, ah—you see," he continued, laboring to explain his mission, "I collect them. And I read your most interesting letter in the paper. So I thought—naturally I thought—that you might still have some interesting details which you did not tell the paper. You see I am—ah—I'm Jonathan Saxby."

Isabel scanned the childlike face doubtfully. The old chap seemed sane enough. Should she invite him in? Hoot, materializing noiselessly from nowhere, brushed confidently against old Saxby's baggy trousers and stalked majestically into the house. It was clearly an invitation.

"Won't you come in, Mr. Saxby?" Mrs. Lane suggested.

"Thanks, I think I will. I think I will. Now, about your earthquake," he began when he was comfortably seated; "you are sure it happened?"

"But there was no earthquake," Isabel protested. "I very carefully avoided giving any suggestion of a shake in my letter to the paper. What Tom and I heard was quite different. It was like a shower of broken glass."

"'Bombarded by billions of beer bottles,'" old Saxby quoted softly. Yang had underlined that poetic phrase in the clipping which he laid before his master, and it had captivated old Saxby's sense of beauty.

"What do you mean?" Isabel demanded sharply. "If you are going to insinuate anything about me, as that smart Alec did about those prospectors, you may leave now."

"Not at all, not at all," he murmured deprecatingly. "I just thought what a beautiful phrase it is. Now this earthquake—or shall we say bombardment?—really was an earthquake. Those old men felt the rock shake."

"I don't believe it. Nothing in this house moved, although something *tried* to move."

"Really!" Saxby exclaimed, leaning forward. "How extraordinary. You are a human seismograph, Mrs. Lane. You see you felt the earthquake before it happened——no, that's not quite it. You felt the tension of the rocks that almost gave way to cause an earthquake. You must be singularly sensitive."

"For a sane man you talk the most extraordinary nonsense I ever heard."

"I know I do," he admitted blandly. "I always have, you know. That's why I am who I am and not, for instance, the poor old peddler you thought I was when you opened the door. But, to come back to your earthquake, or whatever you like to call it. Please tell me everything that happened. You corroborated the prospectors in their account of a tremendous smash and a bad smell. But I feel ah—I feel that you are concealing something, Mrs. Lane."

"I am. An egg."

"An egg? How extraordinary. And why didn't you tell the paper about the interesting egg?"

"Well," Isabel admitted, "I didn't wish to appear ridiculous, for one thing. For another, I thought my husband—he's a captain in the Marines—might be court-martialed if I did."

"Court-martialed?" old Saxby echoed in bewilderment. "For an egg? It isn't done, Mrs. Lane, I assure you."

"It *hasn't* been done," Isabel corrected. "But it might be if the staff officers knew enough to put two and two together."

"Have you been doing arithmetic, Mrs. Lane?"

"I have. A lot."

"And what answer do you get?"

"None. I'm not good at figures. But I know enough to hold my tongue."

"Oh, come now. You can trust me. I don't know any army men—I don't even know a policeman. And if I did I shouldn't tell him anything, even my own name. What about this egg?"

"It was just a green Easter egg."

"Do you still have it?"

"No. The city chemist destroyed it after analyzing the green dye. It was quite harmless."

"It would be," old Saxby commented drily. "I don't see what your green egg has to do with any of this, but let me tell you a little story. It is quite true. About forty years ago some very great professors of chemistry in Germany made a beautiful theory to account for all sorts of chemical reactions. They could explain almost everything. When an experiment came out wrong, and instead of getting a nice, clear liquid or a respectable precipitate, they got a slimy mess that was neither liquid nor solid, they put the beaker up on the top shelf behind the door, because it contradicted their theory. There had been a stupid 'experimental error,' they declared. Soon the top shelf was all cluttered up with glass jars of blue and green and brown slime—experimental errors. Then they used the next lower shelf, and so on. Finally they had to use other shelves not hidden by the door, and at last, after twenty years, they had to move out of the big laboratory to a smaller one. Then a young fellow, who had no beautiful theory, was assigned to the dirty old laboratory as his workshop. The messes in those jars interested him, and he began pottering with them. When he finished, there was nothing left of the theory, and he had made slime fashionable. It is quite all the rage now in chemistry. Need I point the moral? When the city chemist finds your green egg harmless and wholesome, don't believe him. He has probably made an experimental error."

"I am glad you think so. Although I know nothing of science, I feel with my common sense that there was something radically wrong with that egg. The cat—you saw him, the big yellow—sniffed at it and became unconscious. A similar thing happened to three men, one of them a physician."

"This sounds interesting," Saxby commented. "Won't you tell me the whole story?" he begged. "I give you my word I shall not tell anyone if you would rather I didn't. I hate publicity, anyway."

"Very well," she agreed. "You may be able to see the connection between all these freaks of nature. I

can't. First, my husband was one of the sixteen men saved from the wreck of the *Sheridan*. Have you read about it?"

"I can't say that I have. You see, earthquakes are my hobby, and I have no time for newspapers. The clippers send me all I read. I never see a whole paper."

"Well," Isabel continued, "the ship simply burst. Suddenly. Those two prospectors say the rock in the desert burst with a sound like a cannon going off. They also smelt the same kind of odor that Tom—my boy—and I did. That is one pair of coincidences. The sound of breaking glass is another. There are several more if you will follow everything."

SHE gave him an accurate account of all the facts, from the dyeing of the Easter eggs to her letter to the paper.

"Now," she concluded, "if you can make anything of it, you are a lot smarter than I am. What became of that floor mat by Tom's cot? Who would steal a dollar's worth of cotton?"

Old Saxby's eyes glistened.

"I wonder," he muttered.

"What about?"

"Everything. I make no theories. You say you replaced the broken egg by one that was preserved in waterglass?"

"Yes. My husband and I used them. They were all right, but we always got new-laid ones for Tom. Some doctors think the preserved eggs lack vitamines."

"I see. May I take a look at that crock of water-glass?"

"I'm very sorry. I threw it out."

"Why?"

"Because it had gone bad."

"How 'bad,' Mrs. Lane?"

"It was all stringy and full of milky bluish spots."

"And you threw it away?" Saxby cried, a note of anguish in his voice. "Oh, what a pity! Another of those priceless 'experimental errors,' I'm afraid. Where did you put it?"

"In the can with the wet garbage. The men collected the stuff this morning."

Old Saxby groaned. "What a pity! An irreparable loss. Unless," he exclaimed, brightening, "we can find it. Where do they dump the garbage?"

"It is burned."

"Oh, dear! Hopeless. You should have been a professor in a German university—Berlin, or Leipzig. I have daydreamed of this very thing for years. And now, when it happens, a German professor throws all my experiments into the garbage can. Thank Heaven I never married."

Although Saxby's devout gratitude was not very complimentary to Isabel, she accepted it with a smile.

"If the city chemist could analyze an egg, you should be able to get along with the crock."

"Oh you blessed woman. You did not throw away the crock?"

"Of course not. We aren't millionaires."

"Then it will still be dirty—chemically I mean. May I borrow it?"

"Certainly. Are you going to check up the prospectors' story?"

"I am. Tonight. If newspapers are good for anything, someone at the office should know the exact location of that limestone outcrop and how to reach it by automobile. May I use your telephone?"

"It is in the dining room—there. I have been thinking," she continued slowly, "that I should see that place, too."

"Perhaps you should, although I see no earthly reason why. Still, I never professed to understand women. Come with me, if you like."

"Thanks, I shall. While you are telephoning I'll hunt up Tom and leave him at a neighbor's."

When Isabel returned, she found that Saxby had obtained all the information necessary from the efficient newspaper office. He had also telephoned for a good car and a driver.

"We shall be there before midnight," he announced. "You are sure Captain Lane will not object when he hears of our trip?"

"Why should he?" Isabel retorted casually, much as she might have alluded to Hoot.

Old Saxby muttered something about "modern women" and suggested that they snatch a dinner at a lunch counter on the way. Isabel agreed.

"Do you want that crock now?"

"I shall leave it with my Chinese secretary. He is a chemist, you know. It won't be much off our road."

The crock was duly left with Yang to be examined chemically, and the machine sped away toward the desert highway. At first Isabel did not recognize the road in the declining light as they entered the desert; but presently one landmark and then another made it certain that the car was taking the same route as that which she and her friends had followed. The man drove straight ahead, sure of his way, for five hours. When the moon rose he slackened the pace.

"It must be over there to the east about five miles," he said. "Shall I let you out here, or will you risk a puncture? I have four spares."

"Chance it," Saxby ordered. "I'll pay."

The car left the road and cautiously picked its way around the cacti. Within half an hour they made out the dim blue mass of a low ridge directly ahead of them in the moonlight.

"That's it," Saxby exclaimed. "We can walk the rest of the way. Wait here for us," he directed the driver.

On reaching the outcrop they found the jagged fissure immediately. The desert moonlight etched every detail in glaring relief.

"This is the first check," Saxby remarked.

Isabel did not reply. She was staring at her surroundings, strangely unfamiliar in that light, not yet certain of her surmise. She walked over to a cleft in the rock and pushed aside the small flat slab covering it. The desiccated refuse of the meals she had cooked was still there.

"This is the place," she said slowly, cold with a strange fear, "where we ate our supper and breakfast. I must have sat directly over that fissure. And I remember now," she continued, "there was a long crack in the limestone just where we sat. Tom called our attention to it when he saw a small lizard run out of it in the morning. I did not recognize it fully in the moonlight. We went to sleep before the moon rose."

Saxby said nothing immediately. He was thinking and using his eyes.

"Two and two," he commented. "And here is the four. Do you notice these fresh scratches in the limestone?"

He got down to examine them.

"Most interesting," he commented. "You can find any combination of minerals you like to name in this desert. This rock is sandstone speckled with particles of coarse quartz sand. Calcium carbonate and silicon dioxide. Common enough, both of them. But most interesting."

"Is there anything unusual?"

"Not a thing. Let us see what that curious fissure looks like. It may give us an idea for an experiment that should have been tried a century ago. But we were all professors together, and we put away the really interesting things out of sight on the top shelf—where they couldn't make us think."

"What sort of an experiment will you try?" Isabel asked as they reached the lip of the fissure.

"Hard to say. I shall know better when Yang finishes analyzing the inside glaze of that crock. But I shall begin it tomorrow morning in any event."

"We sha'n't be home till morning," Isabel reminded him. "And you will be all tired out."

"I never sleep when I'm working. Well, this crack is the most interesting thing yet," he continued from his knees.

"Why?" Isabel demanded, again going cold with that unaccountable fear.

"Because it is just like the rest of the rock except for one detail. All the particles of quartz have disappeared." He struck a match. "See for yourself. The limestone is peppered with little holes—all empty. There's not a particle of quartz sand visible."

"Promise," Isabel said suddenly, "never to tell a soul that I know of this place, or that I was ever here."

"Very well," Saxby agreed. "On account of your husband, I suppose?"

She nodded. "There may be no connection between the wreck of the *Sheridan* and what those prospectors saw. But it is safer to say nothing."

"Undoubtedly. There may be no connection. More likely there is. I shall know definitely after I finish my experiment. Never mind; Captain Lane sha'n't be court-martialed. Now let us check up on the rest of the story. I want to see exactly how those burros were killed."

They soon located what they sought. The weather had been hot. Saxby was about to go on alone when he stopped suddenly. The faint rumor of an all but inaudible sound had almost crept over the threshold of his hearing. Listening consciously he heard nothing. He went on in the glaring moonlight, hurrying to get his unpleasant task done. He had gone perhaps twenty yards when he stopped instantly, half paralyzed by an instinctive fear.

"Good God!" he ejaculated. "What's that?"

ALTHOUGH he was in no position to realize the truth in that awful moment, his intended experiment had already started and was now progressing at a terrific rate. A dry, creeping rustle, like the gentle friction of innumerable withered snake skins being slowly rasped over one another, whispered aridly through the moonlight. It was the same sound as that which the prospectors had heard and which they had vainly striven to describe to the humorous reporter. To Saxby it was an unexpected horror; the prospectors had succeeded only in describing the shattering crash which ended their vision.

Slowly turning his head he stared back toward the ridge and saw Isabel transfixed by fear before something that seemed to move. It was dimly self-luminous with a milky, palpitating radiance that rhythmically oscillated between purple and green, and the whole mass was utterly shapeless. Its form, if it had any, was beyond analysis. But even as he watched the flickering phosphorescence the dim bulk began to assume definite shape and became angular at a thousand glittering points. Whatever the thing might be, it was striving to come to life. Sensing the intensity of that dumb struggle to live, Saxby came to his senses. He darted forward toward the almost living mass and dragged Isabel away. She was fully conscious, and she knew now what had frightened her four-year-old son half out of his mind.

Expecting at every instant to hear the annihilating crash of the thing's destruction they raced for the car. The crash never came, at least in their hearing. Their failure to hear the thing's end filled them with a new fear. Was it alive? And if so, how long would it live? Could it move? If it did not overtake the car before its exit from the desert, in what shape would it appear in some city or village? And what was its food, if indeed food was necessary to its continued existence? They remembered the burros. But these had been merely slashed to ribbons, not devoured, unless the failure of the prospectors to find a trace of the animals' bones accounted for some unnatural manner of feeding.

They stumbled into the car exhausted.

"Home, as fast as you can go!"

They sat tense and silent, waiting for the echo of a crash which never came. As they shot out to the highway, Saxby recovered his curiosity.

"I wonder," he muttered, "whether I carried that crock into my house with both hands or only one?"

"You carried it in one hand. I remember because you had to open the door with your key."

"Then my fingers must have come in contact with the glaze on the inside. That explains a lot. Gad! I hope nothing has happened to Yang. Can't we go a little faster?"

Saxby's fears were unfounded. Nothing had happened to Yang.

CHAPTER IV

Yang's Dinner

"YANG," old Saxby inquired, one morning about two weeks after his return from the desert, "do you think I could learn Chinese at my age?"

Yang, who spoke an almost faultless English after his exhaustive linguistic purging in both Canton and New York, considered the problem dispassionately. His delicate, intellectual features bore a slightly pained expression.

"No," he answered simply.

"Why the devil not?"

"Because," the truthful Yang replied, giving his answer an unintended twist, "I do not know how stupid you are, Mr. Saxby."

"You don't, eh?" old Saxby snorted. "Well, I can't say the same for you. Here you've been messing about for a fortnight with that analysis, and you haven't found a thing."

"There are heavy traces of silicon," Yang reminded him reproachfully.

"Naturally. There would be. Especially after I told you there was waterglass in that crock before Mrs. Lane scoured it out with boiling water. What would you have found if I had told you she used the crock for making home brew?"

"Traces of alcohol," Yang replied promptly. "I am one expert chemist."

"You seem to be one expert diplomat, too," Saxby remarked.

"Oh, no, Mr. Saxby. I should find whatever you told me Mrs. Lane kept in the crock because you are like the great George Washington. You never lie. May I inquire why you wish to learn Chinese at your age, Mr. Saxby?"

"Because I want to study the geology of China at first hand."

Yang received this information with a dead silence that was eloquent. To Saxby's ears that respectful silence announced that George Washington had stepped off his monument.

"As you don't believe me," he continued, "I may as well tell you the truth. You would find out sooner or later anyhow. I must overtake Captain Lane and induce him to spend a few months in China. There is no tell-

ing how long your fellow countrymen may be fighting among themselves. That isn't our affair. But I have a strong suspicion that our men will be withdrawn as soon as all American citizens are safely out of the danger zone. Lane may be on his way home in one month, or two, or three. I must get to him before he starts back to the United States. His wife and I agree that he had better not come home just yet."

"Mrs. Lane would like a divorce?" Yang inquired blandly.

"You unscientific idiot! Why must you always jump to the most ridiculous conclusion?"

"Because I have lived in America six years. I know the customs of the country," he added proudly. "And you call on Mrs. Lane every day."

"Well, you've slipped up this time. You have an oriental mind. Mrs. Lane is twenty-five. I'm sixty and no fool. I am more interested in Captain Lane's clothes than I am in his wife. Do you know anything of the province of Kansu in China?"

"I know everything about it," Yang admitted modestly. "I was born there."

"That's good. We shall probably be leaving for Kansu some time next week, if I can get passports for one of the English concessions on the coast."

"Captain Lane is going to Kansu?"

"Of course. I expected you to draw that conclusion. It's obvious. Mrs. Lane had a cablegram from the Chief of Staff in Hong Kong saying that her husband had been ordered to lead an expedition into Kansu to rescue a nest of British and American missionaries at Teng-shan. He is on his way there now. I've got to follow at once."

"I think it will be very dangerous," Yang remarked with an engaging smile. "Probably you will be killed."

"I doubt it. How am I to get permission to start for the interior? The military authorities will coop me up on some stuffy battleship. I can't even begin to get killed, as I see it. That's the crux of the problem. Now, if I could learn enough Chinese to ask my way intelligibly, I could go alone after your friends do for you. If only I can get past the busybodies at the seaports I shall find my way somehow to Kansu and join Lane there. You will have to think of some way of getting me in and well started. After that I can shift for myself. I've been in worse places than China, and I'm not dead yet. And I'll wager the Chinese in Kansu, or anywhere in the interior, won't hear a word of all this revolutionary fuss till five years after the row is peaceably settled. You are still as primitive as the early Israelites once you get away from your westernized coast cities. Now, Yang, I put myself unreservedly in your hands. Get me safely started for Kansu and I'll remember you handsomely in my will. If I return to Los Angeles with my own head on my shoulders, I'll give you a cash bonus of exactly double what you would get otherwise. So it will pay you to treat me tenderly. Do you accept?"

Yang made a formal bow.

"I accept, Mr. Saxby," he said. "My father is a very old man. I have not seen him since I left Kansu to enter the Christian College in Canton."

"All right, Yang. It's a go. How will you get me through the lines?"

"We shall walk through. I think you overestimate the difficulties, Mr. Saxby. Am I to know why you wish to catch Captain Lane in Kansu?"

"Eventually you will have to know. So shall I. But as I am not exactly clear yet in my own mind, I can't very well enlighten yours."

"It may be what you call a wild goose chase?" Yang delicately suggested.

"Possibly. In a way I hope it does turn out so. Then again I pray that it may not. Curiosity is the one vice that I have not yet overcome. I never cared much for the others—eating, reforming people, and so on." Old Saxby sighed. "I wish I were a cat or something of the sort with nine lives. There's so much to be pried into."

Saxby sat dreaming for a few moments while Yang busied himself with the daily crop of earthquakes. Suddenly he started up as if stung.

"Why didn't I think of that before?" he exclaimed, seizing the telephone. "Taxi at once," he ordered when he got his number, and gave the address. "Of course," he continued to Yang, "you found nothing but traces of silicon in your analysis. I see it all now. Clear this mess out of the way as fast as you can. I'll be back in an hour with work enough to keep you busy till we leave for China."

When Saxby returned, he presented Yang with two cartons full of neat little packages of dyes for Easter eggs. He had bought out the entire stock of the neighborhood grocery where the Lanes had obtained their half dozen packages. The man assured him that this stock was that from which he had sold for the past season. It had been put away in the storeroom to wait for the next Easter week.

"There's your work," Saxby announced. "Analyze the lot. Don't overlook anything. Get the results accurate to a tenth of a per cent."

Yang groaned, but dutifully set to work. It was a routine job such as any competent senior in college could have done easily, and Yang hated routine.

"Oh, I almost forgot the most important thing," Saxby continued lightly. "Mix this blue with an equal amount of the yellow in tap water and analyze the mixture."

Yang sighed and set out his apparatus on the laboratory table by the west window of the room.

WHILE Yang toiled twelve hours a day at the multitude of little packets, old Saxby used all his diplomacy to obtain passports for himself and his secretary. On the third day he succeeded. Within a week they would be on their way to China. In the meantime, while Yang slaved, he could run out to the desert for a farewell inspection. He invited Isabel to accompany him, but she was forced to decline, as Tom was suffering from the effects of a surfeit of watermelon. Saxby set out alone, this time early in the morning, with a competent driver, on a small truck. He chose this unusual and jolty conveyance because its solid tires eliminated the danger of punctures. He wished to drive right up to the limestone outcrop and be able to leave in a hurry if necessary.

They reached the ridge shortly before noon. A shimmering heat haze hovered over the slabs of rock, and regiments of lizards scurried over the scorching surfaces with their tails up and heads erect. From the care free manner in which they pursued their avocations it was evident that no ponderous enemy had recently marched over their barren territory. Bidding the driver wait with the truck at a convenient spot, old Saxby began a systematic exploration of the whole vicinity.

The fissure was apparently unchanged since it had first opened nearly three weeks previously. Saxby confirmed his discovery that all the quartz particles in the limestone walls of the fissure had disappeared. Searching the surface of the slabs in the neighborhood of the deep, fresh grooves, he noted a similar peppering of small cavities that must have contained silicates.

The important point was, when were these pockets emptied? Before or after the prospectors heard the "shot" that announced the fracture of the limestone? And if the former, precisely how long before? Although

he all but went into a trance thinking of possible ways and means, Saxby could devise no experiment to fix the age of those holes. There must be some simple method, he reasoned, of deciding to within one per cent of the exact age the length of time that a rock surface has been exposed to the air and sunlight. Pondering this simple riddle, he almost broiled himself before reluctantly abandoning the outcrop to the lizards, who seemed to enjoy being fried.

His next task was to examine the spot where the burros had perished. Sun and the desert air had removed practically the last trace of the animals. The eight shells of the hoofs alone remained. Saxby raked every foot of the dust in the vicinity with a stick of dead sagebrush, but found nothing more. There was not a trace of the animals' bones. If the bones were indeed in that dust they must have been pulverized to the fineness of flour.

Trained by long years of scientific work to exact observation and the cool sifting of evidence, old Saxby sat down in the dust to recall every detail of the prospectors' story before leaving the spot. Had he checked every point? What else, besides the animals' bones, should he naturally expect to find in the place where they had been killed? What were they doing when they met their deaths? An obvious but singular fact, whose significance had escaped the shrewd, practical intelligence of Dan and Jake, leaped into old Saxby's mind.

The prospectors related as a matter of course that their burros were hobbled for the night. They had strayed at the first hint of danger. Dan and Jake even theorized a bit. They remarked that, had the poor beasts been free to run, they could easily have escaped. With their front fetlocks tied together, so that they could move forward only six inches at each step, the animals were helpless before their enemy. What, Saxby asked himself, had become of the ropes that hobbled the burros? They were not where they should have been. To eliminate guesswork as far as possible, Saxby searched every yard of the terrain from the spot where the hoofs lay to the oozing spring on the north side whence the burros had strayed. At the end of a four-hour search he concluded that the ropes had gone the same way as the bones—whatever that might be.

"This," he remarked with a smile of satisfaction, "probably explains why the *Sheridan* burst. Still, I mustn't jump to conclusions. Yang hasn't found anything, and I half hoped he would."

He next made a careful inspection of the spot where Isabel and he thought they saw the luminous apparition. He found nothing suspicious except two slight depressions in the alkali dust. These, however, might have been mere natural accidents or rabbits' sleeping places. Whatever they might be, Saxby judged that they were too doubtful to have any value as evidence.

"If I could only put together the pieces I have," he pondered, "I could probably solve the whole puzzle now. Unfortunately I don't quite see how all the pieces fit together. I hadn't allowed for the missing ropes last week, and I thought then I saw a probable way through. It follows that what I think I know now is probably not so."

As he strolled back to the truck he toyed with a possible explanation which Isabel had shown him, with some indignation, the previous day. One of the leading psychologists of America had sent her a marked copy of the *Weekly Psychological Bulletin*, current issue, with a learned article by himself adorning the place of honor. The title of this metaphysical attempt to be scientific was *Collective Hallucinations*. In it the eminent author proved (or said he proved) that two or more persons in the same place at the same time can, and should, see the same thing when it isn't there. He cited the recent story of Dan and Jake, also Isabel's and Tom's similar experience in confirmation. Carried to its limit, this theory would prove that life is a morbid succession of multiple nightmares. Saxby weighed it and found it wanting. The ingenious author of course did not know that the hallucination was triple, not merely double; Saxby had not advertised his adventure with Isabel in the desert. Therefore the psychologist may be pardoned for rushing into print with a half-baked theory.

Even the most careful observers will sometimes overlook a significant detail in the investigation of a brand new problem. In summing up his day's work Saxby thought that he had accounted for all the vital possibilities. He climbed up with the driver, and the truck started home, jolting over the stunted cacti and smoke trees just as the sun set. Saxby had overlooked the most obvious of all the facts in the prospectors' experience, in his own and Isabel's, and in the wreck of the *Sheridan*. What is even more remarkable, when we consider the singular sagacity which Saxby exhibited in this strange investigation, is that he completely missed the same obvious fact in Yang's "hallucination"—for Yang also was to bear out the psychologist's fantastic speculation.

The morning of Saxby's second expedition to the desert, Yang set to work at seven and slaved through the day till seven at night. He was determined to get the last of those exasperating little packets of gaudy colors analyzed before his master's return. There remained only the blues and the yellows and the bright green dye made by mixing the two. As he expected, and as was but natural, several rather delicate complications arose when the blue and yellow were mixed in ordinary tap water. Of course the specific chemicals responsible for the respective colors reacted to form new and more difficult compounds than either presented individually. In spite of himself Yang began to become interested in his analysis.

The problem before him was a good example of an extremely difficult type of manipulation. The numerous compounds formed by the union of the blue and yellow dyes were extremely unstable. A difference of a tenth of a degree Centigrade in the temperature of the mixture permuted these unstable compounds through long series of allied substances. It was an exceedingly ticklish job at any stage of the game to isolate a particular one of these compounds, and it required even more delicate skill to keep the initial substance constant throughout the analysis and prevent it from slithering into one of the others. Yang almost began to enjoy himself.

NOON came and passed, but he never thought of lunch. At three o'clock black Jemima stuck her head cautiously into the laboratory to ask if he were going to eat. Her best corn fritters had twice been thrown out, but she would make a fresh batter if Yang so desired. Yang said something snappy in Chinese. Then, repenting of his profanity, he instructed the humble Jemima to prepare him a real Chinese dinner for seven o'clock—soup, pork, fish, rice and six hard-boiled eggs. He continued his pursuit of the elusive twentieth compound.

At seven-fifteen, while his master was still jolting homeward on the truck, Yang sighed, washed his hands, and took a last look around the laboratory before going to dinner. He had not succeeded in capturing his prey. The twentieth of those subtle compounds still reposed undisturbed in its beaker. The table by the window was in a rare mess. By habit a tidy technician, Yang as a rule left everything in apple-pie order. This evening, however, exhausted by twelve incessant hours of

the most exacting work, he knocked off without setting everything to rights, planning to return after dinner and clean up. The soiled towel on which he had dried his hands he carelessly tossed into the glazed earthenware crock, which Mrs. Lane had used for preserving eggs, and on which he had wasted nearly two weeks in a futile attempt to discover something of chemical interest. Dog-tired he locked the door of the laboratory after him as a matter of habit and went to dinner.

The first course, a really excellent subgam soup, somewhat revived him. He began to long for more stimulating conquests. The wistful quart of old Saxby's topaz wine did not attract him. He wondered whether Saxby, in the excitement of an early start, had forgotten to lock the sideboard. In the true scientific spirit he left the table to investigate. Old Saxby had forgotten. With a short exclamation of triumph, Yang extracted a full wicker quart of his favorite Chinese gin, and removed Saxby's offensive grape juice from his range of vision.

The first moderate cocktail acted merely as an inspiration to Yang's appetite for roast pork. The second and third spurred him to great deeds on the fried fish. By the time he had downed the thirteenth he was calling shrilly for another half dozen hard-boiled eggs. Thereafter he became somewhat confused and upbraided the perspiring Jemima for the bushels of rice which she insisted he had ordered.

By nine o'clock he was very serious. A high sense of duty impelled him to set the laboratory to rights before his master's return. Saxby might be expected now at any minute. Before leaving the table he peeled another egg, ate it, and stuffed four into the pocket of his coat to sustain him in the laboratory.

After considerable experimenting he managed to unlock the laboratory door. His logic now became somewhat erratic. It seemed to Yang that the most important thing to be done first on entering the laboratory was to lock the door after him. Otherwise old Saxby might come and catch him. Not that Yang felt guilty or intoxicated; he merely had a strong intuition that Saxby would jump to an unjust conclusion and give him the devil for nothing. The locking of the door in the dark was a long and complicated operation. It never occurred to Yang that it would have been much simpler to have turned on the lights before attempting to find the keyhole. Having succeeded at last he groped for the light switch. It was on the wall to the west of the door. Yang was now in that sublime state when "east is west and west is east and never the twain shall meet." He began swearing volubly in his native tongue as he sawed blindly for the switch. After five minutes of knocking over stools and smashing glassware that had no business being where it was, Yang lapsed into cold English.

"Oh hell," he muttered, on the verge of tears, "what's the use? All damned things are against me."

He tumbled over to the one fairly bright spot in all that hostile darkness, the dimly outlined rectangle of the west window by his work bench. The slim sickle of the setting moon and the blaze of icy stars shed a doubtful half light on the clatter of beakers and ring stands on the table, rendering their barely visible outlines mistily unreal. Yang lurched for the stool which was not where it should have been, missed it, tipped over a full beaker of bright green dye, and came down heavily on his side. A crunching in his pocket announced the tragedy. His four priceless hard-boiled eggs were ruined. To Yang in his fuddled condition this loss took on the vast proportions of a cosmic injustice. The stars, that wisp of a moon, the darkness and the treacherous stool on which he had jarred his jawbone in falling, all were against him. He was too deeply hurt for tears. Pulling himself up to the edge of the work-bench, he covered the stool and slumped down on it.

To console himself he fished the ruined eggs out of his pocket and tried in that feeble light to salvage some of the yolks at least. For his pains he got a gritty mouthful of egg and broken shells. With a pettish gesture of impotence he hurled what was left of the eggs into the one receptacle that loomed huge in the semi-light above all its lesser neighbors—Mrs. Lane's glazed crock into which, three hours previously, he had tossed the soiled towel. Then, baffled and defeated by the brutal injustice of the universe, he sank his weary head on his arms and sought solace in oblivion.

Only the faint radiance of the stars comforted him, and only the cold light of the sickly moon gleamed uncertainly on his glossy black hair, but he dreamed with agonizing intensity of blinding suns that pulsed with a baleful green, or glowed evilly with a ruddy purple like the living hue of some unnatural blood.

About half past ten Saxby returned. Jemima did not dash out to greet him and trumpet the disgraceful tidings of Yang's orgy. She knew better. Like the essentially catty female that she was, in spite of her two hundred and fifty pounds of shoggling, good-natured flesh, she had left the empty gin bottle in a conspicuous place on the dining-room table. It could not fail to catch old Saxby's eye where it stood, directly under a sixty-watt electric light going at full blast.

"That damned Yang is drunk again," Saxby exploded when he beheld the mute betrayal. "Why can't he learn to drink good wine like a Christian?"

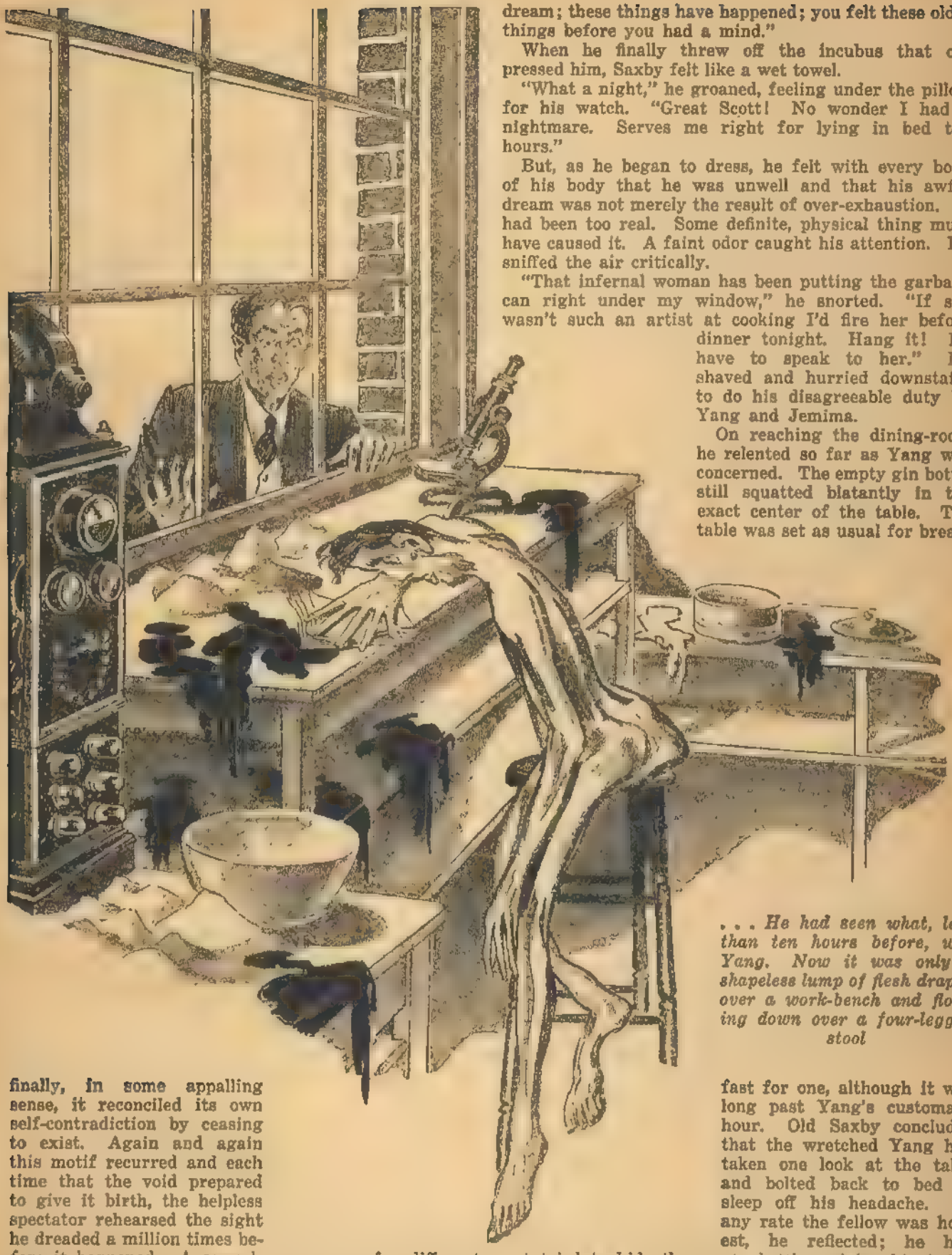
Believing that the dissolute Yang had gone to bed to sleep off his indiscretion, Saxby prepared to do likewise. There would be time enough in the morning to attend to Yang. For once in his life, Saxby looked forward to going to bed. His tramping in the desert and the jolting ride had left him rather tired.

Saxby's bedroom was on the second floor, directly over the laboratory. As he turned off the light before getting into bed, he glanced out of the open window, over the low, distant hills behind which the sharp horns of the setting moon were just dipping. The unearthly beauty of the night landscape gripped him for a moment, as he stood motionless, trying to fix permanently on his consciousness its elusive appeal. His whole body, not merely his reasoning memory, seemed to sense a new quality in this sudden strangeness of a familiar, commonplace world. He experienced a feeling of intimacy, not with the spirit of the night, but with the solid bulk of those massive hills behind which the moon was fast setting.

"What a beastly sensation," he exclaimed aloud, turning his back on the window. "Nerves, that's all. I felt as if the earth of my grave were feeling through my flesh to get at my bones."

Going to bed with such a thought as that would be sufficient to give almost any man a nightmare. Old Saxby was no exception. For ten feverish hours he tossed in a torment that his drugged will strove vainly to end. Part of the time he was half awake and conscious that he was dreaming, yet he could not shake off the lethal stupor poisoning his mind. The dreams were strangely unnatural and yet more strangely real. There was a curious, insanely illogical but yet inevitable sequence in the meaningless panoramas that rolled past his vision like an infinite succession of thunder clouds, each of them instinct with some forgotten significance which he struggled to recall.

THE isolated fragments were the least endurable. A small, shapeless thing would materialize out of an infinite void, seem to expand and yet not to expand, till



. . . He had seen what, less than ten hours before, was Yang. Now it was only a shapeless lump of flesh draped over a work-bench and flowing down over a four-legged stool

finally, in some appalling sense, it reconciled its own self-contradiction by ceasing to exist. Again and again this motif recurred and each time that the void prepared to give it birth, the helpless spectator rehearsed the sight he dreaded a million times before it happened. A second recurrence of a different kind was almost as bad. Like the pulsations of a vast aurora a slow rhythm of dull purple and green throbbed maddeningly through the whole of infinite space, coming and going with discordant regularity. This also was self-contradictory; yet it existed and was real. Through all that horrible dream a voice kept chanting monotonously. "This is not a dream; this is not a dream; these things have happened; you felt these older things before you had a mind."

When he finally threw off the incubus that oppressed him, Saxby felt like a wet towel.

"What a night," he groaned, feeling under the pillow for his watch. "Great Scott! No wonder I had a nightmare. Serves me right for lying in bed ten hours."

But, as he began to dress, he felt with every bone of his body that he was unwell and that his awful dream was not merely the result of over-exhaustion. It had been too real. Some definite, physical thing must have caused it. A faint odor caught his attention. He sniffed the air critically.

"That infernal woman has been putting the garbage can right under my window," he snorted. "If she wasn't such an artist at cooking I'd fire her before dinner tonight. Hang it! I'll have to speak to her." He shaved and hurried downstairs to do his disagreeable duty by Yang and Jemima.

On reaching the dining-room he relented so far as Yang was concerned. The empty gin bottle still squatted blatantly in the exact center of the table. The table was set as usual for breakfast for one, although it was long past Yang's customary hour. Old Saxby concluded that the wretched Yang had taken one look at the table and bolted back to bed to sleep off his headache. At any rate the fellow was honest, he reflected; he had not tried to hide the empty bottle and lay his indisposition to the weather or overwork. Saxby forgave him and rang for Jemima. She came, waddling, expecting a crown of gold for her perfidy in the matter of the gin bottle.

"Jemima," Saxby exploded without any priming, "I want you to stop putting the garbage can under my window. It is one of your most disgusting customs."

Jemima called upon her Lord to bear witness that she was innocent. Saxby, invoking his own gods, declared that he had smelt Jemima's offense with his own nose. The debate degenerated into a shouting match, wailing and tearful on Jemima's part, vigorous and vociferous on Saxby's. At last, getting nowhere by such means with the obstinate woman, Saxby assented to her plea that he look for himself.

The can was in its usual place on the north side of the house.

"Uh," Saxby grunted as the victorious Jemima waddled back in triumph to her kitchen. "There must be something dead under my window." He walked round to the west side of the house to inspect.

The windows of Yang's laboratory were directly under those of Saxby's bedroom. At the first glance Saxby thought the laboratory windows were open. At the second he stopped short. The morning breeze was blowing into the laboratory, but the windows were down and locked. The panes of glass had vanished. Not a splinter remained in the putty, and there was no mark of any implement, either on the putty or the surrounding frames, to give a clue to the manner in which the panes had been lifted clean out of their beds.

"What the devil?" he muttered, going up to examine the window frames. Then he staggered back as if shot, suddenly sick and faint. He had seen what, less than ten hours before, was Yang. Now it was only a shapeless lump of flesh draped over a work-table and flowing down over a four-legged stool. It looked more like a squid than a man.

Saxby's first thought when he recovered his senses was of the coroner. There would have to be an inquest. He had seen enough to know that half an hour after any inquest that might be held the whole country would be paralyzed with fear. All the facts would have to come out, and the public was not yet prepared to receive them intelligently. Saxby himself did not understand the half of them. What good could come of throwing the country into a panic? To warn the people would be futile. They had no means of protecting themselves. Until he or someone else succeeded in tracing the evil to its source, it would be sheer insanity to advertise its existence.

Looking round to make sure that Jemima was not where she had no business to be, Saxby returned to the window of the laboratory. The high tile wall, the shrubs and trees of the garden, secured him from the curious eyes of passers-by on the street. He climbed in at the window. It was essential to his plan that Jemima, the only possible human witness, should believe that he had not entered the house.

As he had half anticipated, he found the laboratory door locked on the inside. He did not unlock it. Poor Yang had apparently shut himself in for fear of being caught by his employer in his usual evening haunts about the house. The old-fashioned wooden shutters were still intact. Saxby set about his task. The odor of decay was still strong but bearable.

There was no time to examine all the inexplicable havoc in the laboratory. One detail, however, was obvious on the most casual inspection. Every particle of glass had disappeared. Multicolored messes still dripped from the shelves as the chemicals from the vanished bottles mingled, and neat little piles of rainbow-hued salts marked the places of innumerable glass containers that had simply ceased to exist. All metallic objects were apparently normal.

Going over to the work-bench Saxby picked up Yang's laboratory notebook and glanced rapidly through the pencilled entries of the preceding day. Although much was half obliterated by the bright green dye which had drenched the open book and soaked into the porous paper when Yang in his fall upset the beaker, short jottings and long chemical equations told the brief story of the nineteen successful analyses. Then followed a disjointed sequence of tentative guesses and abandoned trials on the twentieth compound generated by the reactions of the blue and yellow dyes upon one another.

Saxby slipped the notebook into his pocket and explored the work-table in detail. From the tangible evidence before him it was not difficult to reconstruct Yang's last day on earth. The soiled towel in Mrs. Lane's crock and the crushed fragments of the four hard-boiled eggs, one partly eaten, told their own story. Yang had wiped the composite green dye off his hands on the towel, and he had brought back the eggs for a late supper after returning intoxicated from dinner. By some drunken mishap he had smashed them, tried to eat one, and thrown them away. The smears on the black surface of the work-table marked the places where the test tubes and beakers had disintegrated like the rest of the glass in the laboratory.

Struck by the singular fact that the glazed crock seemed to have survived intact, Saxby reached for it to examine it carefully. It fell to powder in his grasp. The towel also, still discolored by the stains of the dyes, became a pinch of white dust as he tried to pick it up.

IT was necessary to examine Yang. At the first touch his clothing fell apart like the towel. The whole of it now weighed perhaps as much as an open handful of uncrushed thistle-down, and it crumbled to dust at the lightest touch. On the body itself there was not a scratch. Thus far it seemed perfectly normal. But its solidity was gone. In a horrible manner it was shapeless and without resistance, like a lump of melting jelly, held together only by its skin like water in a thin rubber bag. So far as Saxby could force himself to explore, he found no trace of a bone in all that shapeless lump. Yang's bones had vanished as completely as had the glass. His hanging lips disclosed gums that were toothless.

Saxby executed his grewsome task as quickly as possible and set about his more practical work of preventing the inquest. Cautiously opening one shutter, he slipped out of the window, closed the shutter after him and walked round to the kitchen door.

"Where is Mr. Yang?" he asked.

"He done been sleeping off his gin in the laboratory," Jemima replied promptly, glad of the chance to unbosom herself at last. Saxby laughed

"All right," he said. "Don't disturb him till seven o'clock. He should be pretty hungry by that time. By the way," he added as an afterthought, "I want some fresh crabs for dinner. Go down to the fish market and pick out a dozen big ones. They must be fresh. If they're not, I'll fire you."

Jemima began to grumble. It was a good hour's ride on the street car to the fish market, and Jemima was too fat to get into a taxi.

"Get along with you," Saxby ordered. "What do you think I'm paying you for? I want those crabs. I'm going out myself in a minute or two, but I shan't leave till I see you on your way with a basket."

When Jemima was safely round the corner, Saxby dived into the cellar and brought up a five-gallon can of gasoline which Jemima kept for cleaning and other household purposes. This he hurriedly transported to the laboratory, entering by the window as before. With the chairs, tables, the wooden shelves and two cabinets, it was easy to arrange the materials for a very hot and quick fire. The large metal cans of highly inflammable mineral oils, which Yang had kept on hand as a matter of course for use in his work, also about fifty pounds of the proper chemicals scooped off the shelves, and four

large cans of thermite, added greatly to the potential heat. Saxby then drenched the body in gasoline and sprinkled what was left over the highly inflammable stuff piled around and over the body. Finally he tore several pages out of a book and placed them on the floor about a foot away from the pile. The laboratory supply of white phosphorus—two dozen long, cheesy sticks—was then taken out of its can, where it had been submerged in water, and carefully disposed on the paper. Before Saxby was through the window the phosphorus was already fuming.

"I could get life for this, I suppose," he remarked as he darted into the kitchen. "Well, I can't help it. This is the lesser of two evils."

The house was at least two hundred feet from its nearest neighbor. The smoke and flames issuing from the shuttered window of the laboratory should be seen by the neighbors five minutes after the fire started, and the firemen would be on the spot in another five minutes. There was no danger to the neighboring houses, but Saxby's rambling frame structure would probably burn to the ground. One thing was certain; the firemen would not succeed in extinguishing the furnace in the laboratory until what was left of poor Yang had evaporated in smoke. The heat of the themite fire would preclude any immediate attempt to recover the body—provided its presence were suspected. When Jemima returned, she of course would tell the neighbors that Yang had been burned to death in the laboratory. His intoxication would account for the fire and his being overcome before he could escape or call for help. They would search the ruins for his calcined bones and find nothing, not even his teeth. Saxby considered his alibi perfect. Yang's disappearance would merely become a newspaper mystery for a month. Well, let them theorize. They could say he had gone back to China or Mexico, while under the influence of liquor.

With a last look of regret at his beloved earthquakes in their stacked filing cases, Saxby slipped his passport into his pocket, opened the front door, and walked out. At the corner he glanced back to ease his conscience with regard to the neighbors' houses. There was no danger. If the worst came to the worst, and his own house was burned to the ground, the firemen could easily play on the others, the nearest of which was in but slight danger of falling sparks. Old Saxby sighed. He hoped the firemen would save the front room and his earthquake. The filing cabinets were steel, but that wouldn't help much in a really hot fire.

He hailed a taxi and gave the driver Mrs. Lane's address. Easy lies the head that has a perfect alibi.

He first heard that his house had been burned to the ground as he sat sipping tea with Isabel. The afternoon paper featured the spectacular blaze. None of the neighboring houses were harmed. The hectic neighbors had broken into the front room when they first saw the flames shooting up from the laboratory and they had saved all of Saxby's earthquakes.

"God bless them!" he ejaculated as Isabel read him that bit.

"Oh, I'm so sorry," she consoled. "Were you insured?"

"Heavily. But it doesn't matter. I'll be in China in four weeks from today."

Part II—Amateurs

CHAPTER V

White Lily

EINSTEIN has remarked that any blockhead can draw correct conclusions from a consistent theory, but that it requires genius to deduce the truth from one that is full of contradictions. On such authority we cannot deny that old Saxby had genius. Although his theory was not utterly wrong when he left Los Angeles for China, it was a tissue of holes and glaring inconsistencies. Nevertheless, as events proved, he drew the right conclusions.

His hypothesis was what the mathematicians call necessary but not sufficient. Quite logically, and equally inadequately, he reasoned as follows: Tom's Easter egg started everything. Yang, apparently, had been so unfortunate as to reproduce the exact circumstances which had initiated all the trouble. These included Mrs. Lane's glazed crock. Since all of those necessary—as he thought—conditions now no longer coexisted, having been destroyed together by fire and otherwise, it was extremely improbable that anything further of interest could happen in or near Los Angeles. Captain Lane, however, was still open to grave suspicion. He, no doubt, was still "infected"—Saxby used the word for want of better, although it failed to express his thought. Therefore China called him, not Los Angeles or the desert.

Old Saxby should have remembered that as in love, so in science. Unless the time, the place and the girl, or their equivalents, get together somehow there is nothing doing. He had neglected, among other things, the essential element of time. But he was so eager now to seize the likeliest opportunity of verifying his hypothesis and seeing it work before his very eyes, that he hastened to overtake Lane before the latter should lose all his fascinating dangerous qualities.

With a parting assurance to Isabel that nothing much was likely to happen to California in his absence, and a promise that he would never give her husband's unconscious secret away, he packed his grip and caught his steamer. The earthquakes were loaned to the Southwestern Museum until his return. His bank undertook to look after his affairs while he was in China.

"If I don't come back within ten years, the Society of Earthquake Lovers of California is to get everything. You will find the details in my will. Goodbye."

On his way across the Pacific, Old Saxby had ample time to ponder his sins of omission and commission. Yang's laboratory notebook was the first cause of Saxby's qualms. Although by no means the chemist that Yang had been, Saxby was quite respectable and indeed an expert in all the chemistry that pertained to geology. His chemical classification of the basalts, for example, marked an epoch in the science, and his bold theory concerning the origin of the silicates, although openly scoffed at by jealous or less imaginative rivals, at least arrested the attention of chemists. Saxby was nothing if not daring, in thought as well as action. Yang, on the other hand, was a more conservative type of genius, in spite of his weakness for gin. When he theorized—which he rarely did—his speculations had an awkward trick of turning out right. The last, in modern physical science, is almost a miracle. So when Saxby at last thought he understood the pencilings which Yang had scratched on the last page of his notebook, he began to doubt his own wisdom because it contradicted Yang's.

"I wish I had locked up the gin that morning," he sighed. "Poor Yang might have solved the whole problem if he had stayed sober enough to keep out of the laboratory after dark. If there is anything at all in these guesses of his—well, it is too late to turn back now. What a pity Yang died without knowing what he was looking for, or what he found. I wish I had given

him a hint. Another of those infernal experimental errors. Confound my luck. I'm always making them."

While Saxby stewed and fumed, another great man of about his own age was also doing his unconscious bit toward the making of history. The venerable Hu—"Hu the Good" as he was called by his followers, was within a year or two of sixty. He looked eighty. For one thing he was pure Chinese; for another he was much too fat, and finally his kind old face was wrinkled like a wad of crumpled parchment. This was the prophet and uncrowned king whom Captain Lane had been ordered to interview.

Long before Lane and his escort of marines reached the Holy Caves where Hu the Good dispensed blessings and absorbed communist propaganda, the footsore men had nicknamed him Who the Devil. It was indeed but a poor play upon words, yet it eased the feelings of the men as they tramped endlessly over sand and rock, or sweated like cattle in unspeakably dirty river boats. Whom the devil they were to civilize, and exactly why they were to do so, were the questions they debated endlessly. Hu the Good had a bad reputation with the Marines weeks before his friends welcomed them to his sanctum.

Hu was truly a good soul. He was benevolence itself and one of the most temperate men that ever lived, even in a peace-loving, moderate China. By faith he was a Moslem, as his fathers before him had been for generations. Indeed his one vanity was the boast, probably just, that it was one of his direct lineal ancestors who first brought the true faith to China.

The children of Allah, as all the world knows, are a warlike pack, always spoiling for a fight in order to convert the unbelievers—to *their* faith. Hu the Good would have none of this muscular Mohametanism. He detested it, declaring that it was his mission to bring peace, not a sword, to the farmers and bandits of sleepy old China. Yet, in spite of himself, as his powers waned and ever mounting billows of fat submerged his common sense, he began to waver as he approached old age. After all, he declared, there might be something good in this notion of a jehad—the technical term for a holy war (if such a thing is not a contradiction in terms) of the Mohametan brand. Were not the unbelievers, white, brown and yellow, tearing one another to pieces in an endeavor to prove that might is right? Why not give all of them a practical demonstration of their own doctrine? They were weary and ripe for instruction. It would be easy to teach them the truth in their present exhausted condition. Then there would be no more infidels. It almost seemed as if Allah himself had turned schoolmaster. And Hu the Good would be Allah's first assistant to teach all Asia, and possibly the whole world, the letters of the Mohametan alphabet. It was at least as worthy an object as the promotion of free trade. If successful it would open the door, not to China, but to Heaven.

By himself, even in his premature old age, Hu was incapable of hatching so venomous a reptile out of an innocent egg. It is a pity that he grew so fat after he passed fifty. Had he weighed only two hundred pounds it is likely that his mind would have remained as shrewd as ever when the agents from Moscow sought by flattery and sham respect to seduce it. But all his vitality was drawn off to keep the blood circulating through a quarter of a ton of solid flesh. Hu's bulk almost equalled his benevolence, and his senescent feeble mindedness surpassed the sum of both. It was but a sorry pair of rogues that succeeded in debauching what was left of the poor old man's intelligence, but they were the best that Moscow could spare. In his prime, when he weighed only a hundred and eighty, Hu could have swindled them out of their souls in his sleep.

THAT precious pair of rascals, Liapanouff and Markoff, were the two parasites from Moscow who battened upon poor old Hu. It will be observed that both of them had perfectly good Russian names. Neither was a Russian.

Liapanouff was a fairly able, well-read man of about thirty. He was a dank-haired, pimply, unwholesome looking man, stoutish, with a flat, round face like an underdone pie. He habitually wore enormous, unrimmed glasses with thick lenses that made his humid dark-brown eyes glow like a myopic moth's.

Markoff was about forty. He had resided nine years in London, where his name was Marks, ostensibly as a waiter. His true profession is not mentioned in decent society. In personal appearance Markoff was not absolutely repulsive. His tan hair had not thinned, and his sparse mustache was as youthful as ever. Doubtless he wore it because he had sense enough to know that his mouth gave him away. It was as cruel as a rattlesnake's. His pinched nose recalled a vulture's beak, and his all but transparent ears, pointed like those of a lynx, stuck close to his bulging, bony skull. Taken piecemeal, Markoff was an unattractive mongrel; in the *ensemble* he made quite a striking impression, especially upon women. Unlike Liapanouff, Markoff was an ill-informed, narrow-minded, bigoted ignoramus. Such were the vampires who hung like a pair of parched bats to the enormous Hu, draining him of his common sense.

The gist of Liapanouff and Markoff's mission to Kansu was childishly simple. The "Kansu mission" was delegated to them because they had half mastered spoken Chinese in the shortest time. They were, technically, "provocative agents" on a grand scale. The technique of such agents has seven main operations.

First, find a large class of human beings whom you hate and who are being oppressed by a more powerful class whom you envy. Second, ingratiate your way into the friendship and confidence of the oppressed. Third, incite the oppressed to attack the oppressors against whom they have not a worm's chance of victory. Fourth, betray all the secrets and plans of the oppressed to the oppressors, thereby winning the confidence of the latter. Fifth, join the oppressors in their overwhelming counter attack upon the oppressed, but be careful not to venture within a hundred miles of the actual fighting. Sixth, find a more powerful class than that with which you are now affiliated, and repeat the preceding program indefinitely. Seventh, if at any stage of the application of the rules a finite limit is reached, so that no further treachery is possible, swallow your capsule of cyanide of potassium, as the only logical conclusion.

Markoff and Liapanouff were as yet only at the second stage. They had convinced a large mass of the christianized Chinese that their more numerous heathen brothers were walking all over them with wooden clogs. The Mohametan followers of Hu the Good outnumbered those of the Christian missionaries and their converts twenty to one. The Buddhists and Confucians in their turn were dozens to one against the Mohametans. After Hu had wiped out the Christians, he and his followers were to get their own medicine.

In all this the westerners would of course suffer heavily. Bourgeois Britain and capitalistic America would be drawn into the row on a huge scale. Asia would end by fighting the rest of the world. The Liapanouffs and the Markoffs would be on the winning side when the gas and flames cleared away, and the statesmen took out their jeweled fountain pens to autograph the treaties. Then the "provacation" would begin all over again, and the victors would find themselves going the way of King Herod. The grand objective for the present was the communization of Asia.

Throughout this vast game Hu the Good was merely

a pawn, but the Moscow agents were unduly contemptuous of poor old Hu. They forgot that chess as played by masters often turns upon the gain or loss of one humble pawn. Hu had been a master in his day; old Saxby still played a pretty good game, while Liapanouff and Markoff were handicapped by Markoff's petty vices which somewhat dulled the expected brilliance of his moves.

The queen of the board was Hu's eighteen-year-old granddaughter, whose pretty Chinese name is equivalent in English to White Lily. She spoke only Chinese. Markoff was endeavoring to teach her enough Russian to make conversation salaciously interesting. As the instruction always took place under Hu's watchful eye, Markoff found his pupil rather dull. He did not get very far with her.

Hu the Good cherished White Lily more tenderly than anything else on earth. Even his religion took the second place when she was near. Small and well formed of body, White Lily was perfect of her kind. Her youthful grace was evident even under the flowered blue of her tunic, and her delicate, oval face was as quaintly piquant as a Chinese fairy's. Her father was Hu's son, her mother a commoner undistinguished for anything but good nature and the fading remains of a once great beauty. Hu's son was just a law-abiding, hardworking farmer on his own land. The shrewd, subtle mind which was Hu's in his prime had skipped a generation. White Lily inherited it. She had an added advantage, which Hu had never possessed. There was never any mistake about him—until he grew too fat. He always looked his proper part—wise, strong, calm and benevolent. White Lily was such a pretty girl that strangers—and many who had known her for years—mistook her for nothing more. Consequently she usually did what she liked with people, and did it charmingly. They frequently were too dazed to know what had happened until long after it was all over.

Under the pretense of seeing that she was becomingly educated—White Lily needed no education—Hu borrowed her from her parents and kept her by his side. As his powers waned, hers waxed. It solaced and yet saddened him to see himself rising from the grave in a beautiful reincarnation. For in his secret thoughts in the long, sleepless silence of the nights, he knew that the great man he had been was dead.

White Lily reciprocated her grandfather's affection. If she did not think much of his technical faith, and still less of his ability as a prophet, she kept her doubts to herself. She was content to let him enjoy his little foibles. They were an old man's weaknesses of no great moment. Provided no cloud rose between them to chill the warmth of their perfect understanding, Hu might start his precious jehad whenever he felt inclined. She herself did not greatly care for the cocksure coolies and beggars who bragged incessantly that they had been converted to a better faith than hers, and who missed no opportunity of telling her that she and the good old Hu must fry forever in Hell. If the jehad should succeed in letting the offensive conceit out of some of these boorish braggarts in this life, she and Hu would gladly take their chances in the next. The converts no doubt were oppressed. On the other hand they were not conspicuous for humility. Therefore White Lily remained, on the whole, neutral.

She knew exactly what the thin-lipped, persistent Markoff was trying to do to her. It rather amused her to think that he believed in his ability to succeed. But it grieved her that Markoff was not a Christian. There could be no equitable grounds for eliminating him in the jehad. Liapanouff she rather liked. He never talked to her of Russian love, which disgusted her, but conversed quite entertainingly of Western culture—its politics, its science and its literature. His Chinese, too, was much better than the intense Markoff's, although the latter's was not half bad. From Liapanouff she also learned—without his knowledge—enough Russian words to follow the general trend of the private conversations between the two agents, particularly when they concerned her. And yet Liapanouff, like Markoff, found her exasperatingly dull in her pitiful attempts to learn Russian. The pasty Liapanouff was more of a dilletante scholar than a diplomat, while Markoff knew too much about women ever to sense when one was making a fool of him.

White Lily turned the pair inside out and read their private weaknesses as readily as the old augurs used to decipher the entrails of an ox. Ostensibly she was on their side. She saw the spectacle they were making of poor Hu, but kept her knowledge to herself. If the playmate of her babyhood wanted his fun in his second childhood he should have it, for she loved him. So she thought while it was all only a nebulous theory.

THUS the jehad brewed while Lane and his men strove by forced marches to reach Kansu before it was too late, and Saxby fumed and fretted to overtake Lane on what, after all, might turn out to be a foolhardy wild-goose chase. Revolution and counter-revolution made Lane's going delicate and difficult. Warring factions of inflamed patriots tore pacifist old China to pieces for their own gain, and religious hatreds smouldered like a chain of volcanoes about to erupt. Europe and America watched the trouble uneasily, but not altogether passively, while Great Britain tried not to see the end of white domination in Asia. All in all it was as busy and as black a day in human affairs as this troubled planet has suffered.

Yet all of this furious fuss was but the mere disorderly running to and fro of an excited community of ants beneath a gigantic foot about to descend and smash them flat. Like the voracious nations of insects, who lack the imagination to combine their armies against their common enemy, man, and who miss their easy victory by fighting among themselves, the swarming hordes of human beings were striving to exterminate one another, all unconscious that their desired ends could be more easily attained by a coalition against their universal enemy, brute nature.

Would the foot descend? Nature is impartial, or perhaps indifferent. A sudden impulse in another direction might urge her aside and let the busy ants live. But if not, and if she kept to her present blind way, the ants would be crushed. Saxby, if urged to bet, would have placed his money against the ants. Nevertheless he was on his way to do the best he could for them.

To a moderately critical mind, he was used to assert, when feeling blue, the whole sweep of organic evolution, human and otherwise, must appear as the aimless dream of an idiot realized in meaningless action. It remained in this instance to be seen whether nature and evolution can be directed by human intelligence. If not, the stupid game would come to an end forever; if so, it would be the beginning of an end of pessimism.

Such was the setting when Hu the Good brought ten thousand boils to a head by officially prophesying a jehad. The prophecy was equivalent to a command to all faithful followers of Mohamet to slaughter the infidel missionaries and all their converts. The blaze thus started in remote Kansu was—so Hu prophesied—to sweep all China like a grass fire. The holy heat of China was to kindle all Asia, and Asia's conflagration in turn was to sweep the world and consume utterly the last unbeliever. Hu's fat had at last gone to his head.

The prophecy was vouchsafed from the innermost shrine of Hu's vast sanctum, near Teng-shan, in the once famous limestone caverns of Kansu. White Lily smiled fondly on the old man who took his self-imposed office so seriously. His artless importance and his sudden flash of belief in himself were cheap at the cost of a dozen jehads. He was happy. Liapanouff blinked his moth's eyes and moistened his slack lips. Markoff's fanatical face set like a ratttlesnake's about to strike. The agents' first task was accomplished. In a few days they could safely start the second by betraying Hu.

At the very beginning of the holy war a slight difficulty arose that threatened to abort the whole jehad, until Markoff's masterly mind found a way out. A jehad is nothing if not swift and vigorous. It must go with a punch or it peters out. Now, unfortunately for Hu's prophecy, the Mohametans had no firearms and no swords. A few antiquated, inefficient pikes of the seventeenth century were all they could muster. The governor of Kansu had long since sent all the more modern weapons to a personal friend, at the time a general in the army of the revolution. How in the name of Allah were the infidels to be converted under these deplorable conditions? It would take forever, even if the Mohametans, unarmed, should be strong enough and sufficiently numerous to round up all the unbelievers and feed them a dozen at a time to the pikemen.

Markoff wriggled up to the enormous Hu and whispered a few short sentences, glancing behind him from time to time toward the far darkness of the eastern wall of the cavern. Hu nodded. He had prophesied. If the jehad should fall flat before it even started, Hu's authority as a prophet was over. With a guilty glance toward White Lily, who stood a few yards away demurely trying to overhear what Markoff was whispering, he assented. His reputation would be saved. Markoff slipped away like a snake, and began whispering to Liapanouff, who squatted yellow and damp on the floor of the cave like a diseased toadstool.

White Lily smilingly advanced to coax the truth out of her errant grandfather. She knew that he was feeling thoroughly ashamed of himself.

"Tell me what he said," she entreated, like a child begging for a toy.

Poor old Hu looked troubled, and a slight tremor agitated his vast bulk, to die out in broken ripples on his huge hands.

"It was just a political matter," he muttered in the folds of his chin.

"Was it about the jehad?"

Hu the Good tried to lie. But he could not. All her life White Lily had heard nothing but the truth from his lips. Habit now overmastered him.

"Yes," he admitted. Then, after a pause, "Would you be sorry if my prophecy should turn out to be false?"

"Of course I would. But you are always right, so the jehad must happen. Did Markoff tell you *how* to make it happen?"

Hu did not deny that the thin-lipped reptile had given him more than a hint toward making the prophecy a fact. But, having found his courage again, Hu thought it better to tell his granddaughter only the half of Markoff's brilliant scheme.

"These caverns have many chambers, and they are sacred," Hu rumbled as if he were prophesying again. "All the infidels of Kansu might gather in the least of these holy places that my fathers blessed, and be but a handful of sand on the floor. Here, in these hallowed caves, shall the unbelievers hear from my lips that Allah is God and Mohamet his prophet. Then, if they still hug their unbelief, I can do nothing more for them.

"You will not destroy them?"

"How can I? The governor of Kansu has robbed the faithful of their arms."

White Lily was but half convinced. Against reason she hoped that her good old grandfather had at last recovered his sane benevolence. She knew that he had hated bloodshed all his life. Was it too much to believe that the cataracts of old age had rolled back from his eyes for a moment, giving him a vision of his true self?

"There will be no jehad?" she questioned doubtfully.

"I did not say so. But this jehad will be bloodless."

"Even after all the shameful insults those arrogant beggars have flung at you—and at me?"

"Yes, even after all those, and after all their brawling self righteousness that has stirred up hatred and riot in Kansu."

She gave him a long look, but he did not wince. Then, wondering whether she had lost him at last, she turned away without a word.

Markoff and Liapanouff stopped whispering when they saw her coming toward them. She halted within a yard of the squatting pair. Like two whipped curs they furtively watched her face with their eyes, not daring to raise their heads. Liapanouff moistened his loose lips; Markoff's bony jaw set.

"Stand up," she commanded.

They shuffled to their feet, and stood slouching with their hands behind their backs.

"Is there to be a jehad?" she demanded.

The reptilian Markoff, after a swift glance at Liapanouff's mushroom face, took it upon himself to reply. "There will be a bloodless jehad," he answered.

White Lily saw that it would be merely wasting breath to question them further.

"Remember," she warned them, "that I am my grandfather's brain and I am his right hand. What his brain thinks of your jehad will determine what reward his right hand shall give you."

Turning her back abruptly on them she walked rapidly away toward the far crescent of bright yellow that was the sunshine on the hillside beyond the entrance to the cave. Sweating with a cowardly fear they watched her dwindle and pass under the vast arch, a toy figure no taller than a match. The very indefiniteness of her threat, and their uncertainty as to the exact meaning of the idiomatic Chinese in which she had uttered her warning, only multiplied their terror. A cold shiver ran up Markoff's back and his jaw set convulsively.

"Shall we go back to Moscow?" Liapanouff suggested.

"If we go back unsuccessful, we shall be shot." Markoff's snake mouth closed viciously. "We can get away at once after it is over. What can she do? She is a Moslem. The Buddhists and the rest won't listen to her—no! The governor has promised to help us. The Moslems will be wiped out, and she with them, a week after we finish. I shall ask the governor," he concluded with a bestial leer, "to spare her life for a day or two."

Liapanouff, the sedentary scholar and man of zero physical courage, began to suffocate.

"Let us get out of here now and go to the coast. Japan, anywhere——"

"Tch!" Markoff cut him off. "The governor is a fool and a friend of ours. Let us take a walk through the caves instead," he suggested with a cold, ophidian smile. "Over that way."

Linking his arm through the cheesy Liapanouff's, Markoff dragged the cowardly lump of flesh off toward the shadowy vastness of the cavern's eastern wall.

While the two agents flitted silently as bats from cave to darker cave, dispensing with the torches which long familiarity with their objective made superfluous, White Lily walked unhappily and alone through the afternoon sunshine.

FOR the first time in her eighteen years White Lily was crossing the great gulf between theory and practice. As long as her grandfather's jehad was only something to be talked about in a large, philosophical way, she had aided and abetted him in his harmless foolishness. Searching her mind now she realized that she had always hated the thing itself, and that she had never dreamed of it actually happening. Hu was after all only a benevolent dreamer, a prophet in the true sense, not a stupid firebrand. And now these vile agents, with their flattery and their incessant suggestions, preying upon the old man's senility, had debauched his intelligence. They had even so far degraded his high honesty that he was now not above putting her off with a half truth. The bloodlessness of the prophesied jehad did not for a moment deceive her. What devilish thing had that snake whispered in her grandfather's ear? All her young sagacity deserted her and she found herself as helpless as a baby before a mathematical equation. She could not solve it. Nevertheless she knew that it had a solution, and an evil one.

What should she do? The true spirit of her grandfather had indeed descended to her. Her hatred of salvation by force of arms was as fierce as ever old Hu's had been. To avert that "bloodless" jehad was her one passion. It should not happen. But how was she to prevent it, when its very nature was unknown to her? At least she could warn the white missionaries to leave Kansu with their converts while there was yet time. She approached the Christian school nestling in its grove of firs at the foot of a long slope, and entered the main room without knocking.

The missionary, a gray-bearded, dreamy-eyed Scotchman, was just about to dismiss the last batch of his young pupils for the day. Seeing the pretty Chinese girl hesitating by the door, he left his class for a moment to ask her what she wanted. He addressed her in Chinese, as White Lily knew no English, never having attended one of the Christian schools. To his inquiry she replied that the Moslems were about to start a crusade of extermination against all sects but their own.

"I have heard such rumors," the missionary replied. "They are just gossip."

"They are not. The jehad has been prophesied. Do you understand what that means to the Moslems of Kansu?"

The gray-bearded face set like the death-mask of a martyr.

"'I fear no evil, for He is with me.'"

"But your women, and your children?"

"They will be true to Him."

White Lily shot him a brief, oblique glance of contempt.

"I tell you there is time to escape to the hills where you can hide till your friends come for you. You can bring them to you by the talking wire"—White Lily's description of the electric telegraph which still, presumably connected the main towns of Kansu with the seaports. Unfortunately the revolutionists had destroyed the first three hundred miles from the coast inland, and Kansu was now completely isolated.

The missionary drew himself up.

"Shall I forsake my Christ and my God?"

White Lily turned her back on him and walked out.

CHAPTER VI

Hu's Folly

LANE'S flying squadron did not fly very fast. Transport, never strikingly efficient in the interior of China, was almost hopelessly disorganized by the revolution. Pinched between two hostile armies the marines proceeded most of the way by sufferance only, and were glad to take at any price what the Chinese officers left. Lane's orders were to reach Kansu and rescue the missionaries without firing a shot unless driven to the extreme of self defense. Any other course would have been suicidal; either of the rival Chinese generals could have annihilated the intruders with a gesture. So long as the Americans minded their own business they were free to go as they pleased. Should some get plugged by stray bullets it was no more than they could expect, and the fault would not be China's. The column was armed only with rifles; tanks and machine guns were left behind, partly to humor the Chinese army officers, partly to make speed at least half way possible.

The telegraph service, like the transport, was practically non-existent. Either the native operators had been shot by one faction or the other, or each side had tried to better its rival's record in pulling up poles and cutting wires. There was of course no wireless for the use of outsiders. Not till he was in far western Shen-si, within fifty miles of the border of Kansu, did Lane succeed in getting a message through to Teng-shan. The last fifty miles of the line were intact, as was also the beady-eyed Chinese boy tapping the key. Lane asked the operator to call the Protestant mission station at Teng-shan and ask how things were going. The day operator at the other end, evidently a Moslem, replied cheerfully that the province of Kansu as a whole was doing as well as could be expected, although perhaps a little too slowly.

"The jehad of Hu the Good," the operator concluded blithely, "will not leave one infidel's head upon his neck."

"All right," Lane remarked to his first lieutenant, "we shall have to hoof it. No stop till we get there—except for chow."

The men had done twenty-six miles on their feet that day over sand and gravel. Most of them were now dead to the world. On falling out they had dropped off to sleep without waiting for their rations. Before giving the order that set the column into motion like a well-oiled machine, Lane briefly explained the reason for the apparently absurd command. Military discipline did not require that the men know why they were being treated like machines, but common sense did. Lane knew from long experience that an occasional descent to the level of human decency will get the impossible out of a company that is just about done. The column moved briskly off, cursing Hu. The first twenty-five miles before them was a steady grind uphill from 1,500 feet to 6,000 over one of the poorest apologies for a road in all of western China.

At midnight the column halted for thirty minutes at the last telegraph station east of the Kansu boundary line. Lane, his first lieutenant and the interpreter went in search of the operator. They located him in the village gambling den betting on a cockfight.

"What news from Kansu?" Lane asked through his interpreter.

This boy was a Christian convert and knew a few words of English.

"Damn bad," he replied. "You going to Kansu?" he inquired of Lane through the interpreter.

Lane explained his mission and asked whether it would be possible to raise anyone at that hour in Teng-shan. The operator was greatly interested. As a sporting venture he offered to bet that Lane and all of his men would be killed the next day. The stakes could be left in the hands of the gambling den boss. Yes, he thought he could raise the night operator in Teng-shan, provided the Moslems had not yet martyred him. The night operator also was a Christian convert. When

the cockfight ended suddenly in the deaths of both combatants, the telegrapher rose obligingly to see what he could do.

In ten minutes he was back, smiling, with a reply. It appeared that the Teng-shan night operator had been trying for four hours to communicate with the outside world. Hearing from his Christian brother over the border in Shen-si that an American column was on its way to rescue the missionaries, he sent them this simple greeting, "For God's sake hurry." The column fell in and proceeded immediately up the barren pass.

No matter what the prize, or what voice calls, there is a limit beyond which human endurance cannot pass. The column went to pieces all of a sudden at sunrise, just as it was about to descend the pass into the first long valley of Kansu. Its objective, Teng-shan, was still twenty miles distant. To preserve the proprieties and save at least the shell of military discipline, Lane ordered a four-hour halt. The men flung themselves upon the jagged rocks where they stood. They were asleep before they hit their stony bed. In those four hours, while the men slept, the prophecy of Hu the Good was in part fulfilled.

While the exhausted men slept on the mountain pass, old Saxby, more than a thousand miles away in Shanghai, began definitely to play his part in the drama which was now sweeping to its climax. For the moment he was being buffeted from one unsympathetic official to the next in an almost hopeless attempt to get started on his way after Lane.

"I've been in worse messes than this," he reiterated to keep up his courage. "I'll get there."

THE chilly welcome accorded him and his interpreter by the Chinese, American, French and British alike, had its inevitable effect. In spite of himself, Saxby fell a victim to the blackest pessimism. He began to doubt his theory and to suspect that his reward at the end of his intended journey—if he ever got there—would be a large and empty mare's nest. Why the dickens hadn't he stayed in Los Angeles? The desert, the Lane's bungalow, the ashes of Yang's laboratory—any of these offered greater chances of success than anything he might get from Lane. Wishing himself anywhere rather than in China, he dropped into the Army and Navy Club and ordered a bottle of port. As he sat gloomily sipping his wine he went over every detail of his theory with critical disgust. One possible check that he had overlooked in his previous analyses emerged from this searching examination.

"It is probably as wide of the mark as the rest of my guesses," he muttered as he finished the bottle. "Still, I overlooked it. That's bad. If there's nothing in this hypothesis I may as well take the next boat home. Well, it's easily verified one way or the other."

He rose to go in search of the president of the club. It was the president who had introduced old Saxby to the club and got him a "distinguished visitor's" privileges for the length of his stay in Shanghai. When the president saw Saxby coming he tried to dodge. The eminent geologist had made rather a nuisance of himself with his persistent buttonholing of anyone who might possibly help him on his way. Failing to escape, the president made the best of it.

"Not off for Kansu yet, Mr. Saxby?"

"No. And I doubt whether I shall go."

The president brightened. Saxby explained his impending change of heart.

"It all depends on what the Nautical Almanac has to say about the moon for the third of last month. I know you and the rest of the men here think I'm a lunatic. I am. And to prove it I want to borrow a Nautical Almanac—you must have one. If the almanac says it was impossible for the moon to shine into the east windows of a house in Los Angeles on the third of last month at any time between the hours of ten at night and five the next morning, I take the next boat home and leave you in peace. But if the moon did shine into the windows between those hours, I shall be forced to pester you till you send me to Kansu or till I start walking there. You might ask one of the younger naval officers to give me a hand with the necessary calculations while you are about it. You know I'm crazy. Better humor me."

The president humored him. With the help of a dapper young ensign Saxby soon found what he wanted. The moon did shine into the east windows on the third till approximately two hours after midnight, when it passed the zenith and threw the east sides of the houses into shadow.

"That settles it," Saxby exclaimed to the apprehensive president. "I must go on now to Kansu even if I have to walk."

"What has the moon to do with it?" the president asked. Old Saxby did not look like a lunatic, and in ordinary affairs he seemed sharp enough.

"I'll tell you when you talk the Army or the Navy into giving me an escort and an interpreter who won't run home when he hears the bullets singing. How about it? Can't you see I'm no fool? I tell you, on my word of honor backed by the full force of my scientific reputation—you can check up on that much—that I know what I'm talking about. This potty little revolution that all you fellows are making such a fuss over is nothing to what *may* happen if I don't get to Kansu in pretty short order. Mind, I don't say that it *will* happen; I only say it *may*. And further, the moon may have nothing to do with the case. It is a mere hypothesis that I overlooked. Still, since the moon does not contradict me, I feel more confident that I'm on the right track. Half an hour ago I was clear down in the dumps. Now I feel that I'm right in the main, although possibly wrong on every detail."

The president and the ensign exchanged a furtive glance. The emphatic old chap was clearly daft. How could they rid the club of him without raising a scandal?

"I suppose you can't give us any hint why all this secrecy is necessary?" the president suggested.

"That much is easy. As you can verify by looking in *Who's Who*, I have been a bachelor all my life. I know nothing about women. Still, I believe it is not the thing to let a woman down when she honors you with her confidence. Anyhow, I'm an easy mark for any woman who asks me to do something for her. I promised one that I would never tell on her—"

"Ah," the ensign and the president commented in unison. Here was something they thought they could understand. "Husband," Saxby concluded.

"Oh," they remarked, somewhat crestfallen.

"Because," Saxby continued, "he would probably be shot if I did. There you have it all. If I tell all I know, an innocent man, technically guilty, may lose his life. That is one reason I hold my tongue. Another, more important, is this: If I go off half cocked, there will be a blue panic all over the United States and Asia. My objective is to destroy the very real grounds for such a panic—if they still exist—as quietly as possible. Any army or navy man knows what a panic among the civilian population will do to the forces at the front when the enemy is about to start his grand offensive. My situation is exactly similar. Now, when can I get away for Kansu?"

The president's efforts to "humor" his guest were only half-hearted. He was beginning to believe that this self-assertive man should be taken at his own valuation.

"I don't see what the moon has to do with your problem," he concluded, "unless it helps you in some way to fix the date of a crime—say the theft of an important document." He shot Saxby a keen glance. "The Moscow reds are not mixed up in all this by any chance?"

The activities of the communist agents in all departments of the Chinese armies during the revolution were common and disquieting knowledge not only to military men but to every civilian on the streets. Moscow was more feared than the whole of China, and for obvious reasons. Was Saxby hinting at some vast communist plot which he alone was in a position to nullify? If so, why had he not come with proper credentials from the United States Government? Was he perhaps a secret agent of the Government, on a mission so delicate and so dangerous that no Government department or cabinet officer could risk sponsoring him and being found out if Saxby should fall down on his job? Saxby was not blind before his ludicrous opportunity. The anti-red nervousness of all Americans, British and French in China had delivered the president and his military friends into Saxby's hands.

"I can say nothing as to that," he declared guiltily.

Old Saxby, of course, was speaking the literal truth. He could not say anything about the possibility of the Moscow communists being involved in his project because he knew nothing whatever about them and, until the president obligingly mentioned them, had never given them a thought. He now concentrated his whole mind on Moscow, bolshevists, communist propaganda and the redder shades of anarchy, in order to look as guilty as possible. The ensign and the president were studying his face as attentively as if it were a map of the whole world's future history.

"You couldn't even drop a hint, I suppose?" the ensign suggested.

Saxby mumbled something indistinct in which the sacred phrase "word of honor" seemed to occur. He looked as if he were about to be hanged. In a burst of candor he glanced up suddenly and looked the president squarely and manfully in the eyes.

"You understand, however, that I must get to Kansu in the shortest time possible, don't you?"

The president would not admit in so many words that he did.

"I shall have a talk with General Maitland," he promised vaguely.

"May I urge," old Saxby begged, his face as solemn as an undertaker's, "that you do so without further delay? Although I can tell the general no more than what I have told you, I shall be glad to lay my case before him. You will find me in the lounge when the general wants me."

He marched off to the lounge before the president could say yea or nay. In half an hour he was paged, as he had expected to be. He was now thoroughly primed for his part.

Old Saxby knew "Hardboiled Maitland" well by reputation. Maitland was a queer mixture. When not actively fighting, but only planning to fight, he was a martyr to nerves. In these trying interludes he earned a fearsome reputation for drastic severity with his men. The least infraction of discipline meant courtmartial. So heavily addicted was he to this form of relief that his more level-headed colleagues on the staff used to call him "Courtmartial Harry" behind his back. But, in spite of his faults, Maitland was a competent soldier, if not a brilliant general. Given a definite, hard task to perform, he snapped into action and forgot himself and his nerves. As it was Maitland's personal eccentricities that, in the last analysis, encouraged Nature's worst, and as the same idiosyncrasies helped in no small measure to undo the damage in the final phase, he may be given at least a positive mark of merit for his share in the crisis. Many a better known man came out of the World War with only a doubtful zero.

The interview was an extremely harassing experience for the general. At dropping nebulous, disquieting hints old Saxby proved himself a past-master. In all the six hours he spent that evening conferring with the general and his staff, Saxby said precisely nothing that meant anything definite. The very vagueness of his attitude was its most disturbing quality. More than once in that long grilling the general glanced uneasily round the room as if to detect Russian spies behind the Chinese silk hangings.

When the boy entered with a tray of highballs for which the general himself had rung, Maitland demanded in a loud, military tone why the devil the boy kept wandering in and out of the room without knocking. It was a hectic night for an overwrought man whose duty compelled him to sit on the safety valve of half a dozen anarchistic revolutions. To aid the general in acquiring a proper frame of mind, Saxby waited till his host's head was turned and then shot his glass to the tile floor. Applied psychology is a great force for good—if applied at the right time. The general jumped as if bombed from below. Thereafter he was old Saxby's meat.

LANE'S footsore men, refreshed by their four hours' sleep and a full meal, were swinging down the pass toward Teng-shan, still fifteen miles distant, when Markoff, with a thin smile, turned to the pasty Liapanouff and gave him his parting instructions.

"Now for that fat fool Hu. Stay here and talk to him while I go to the governor. Don't let White Lily run away. She looks as if she needed attention," he concluded with a leer, nodding toward the girl. Her huddled body lay prostrate with grief and horror at her grandfather's feet.

Liapanouff blabbered some reply and moved off to do his dirty duty. He walked slowly, for his knees felt as weak as water. No mere remorse for what he and Markoff had done caused his debility. A lively apprehension of what might happen to his own flabby neck, should the fanatical Moslems take a fancy to him, made him the sweating pulp he was. For he too was an "infidel" to the Mohametans. The vast caverns of the outer caves were now packed with yelling mobs whose fanatical hatred Liapanouff himself had helped to fan into flame. Now he would have given ten minutes of his life—not the proverbial ten years, for Liapanouff was too great a coward ever to visualize himself voluntarily letting go of life—to put out that bloodthirsty, flesh-hungry fire of his own kindling. His greatest chance of safety was at the side of the prophet Hu.

The old man sat dazed and blind in the glare of a thousand torches, trying to recall what in God's name he had done, and wondering why in the name of God he had done it. Liapanouff approached like a bloated leper and laid one damp, white hand on Hu's vast forearm. The huge face turned and loomed before Liapanouff's. Through the Russian's clouded mind flashed a memory of a setting sun he had once seen when a boy on the wintry steppes. The prophet's face flickered in the torchlight as that watery sun had flickered before it abandoned the world to the iron grip of a merciless cold. Brushing the memory aside he began to babble. Hu gave no sign that he comprehended either the agent's sickly flatteries or the fanatical shouts of his faithful followers. He turned away his face from the Russian's and stared stonily at the misty eastern wall of the cavern.

Liapanouff moistened his lips and swallowed nervous-

ly. He had had enough. The certainty that he would get more if Markoff's negotiations with the governor of Kansu should miscarry in a certain detail, impelled him to mercy. The chance of failure on Markoff's part was all but negligible. Still, Hu *might* escape with a body of followers sufficient to repay one debt before he died. Better risk Markoff's cold anger than face Hu's Chinese fury if the one chance in a million should mature. The Chinese mind has a natural genius for devising strange forms of death. Liapanouff did not wish to be Hu's inspiration in case the improbable happened and Hu escaped for a day or a week. He stirred White Lily fearfully with his foot.

Thinking it was her grandfather who had touched her, she looked up, her eyes dim with tears, and saw Liapanouff. With a shudder of disgust she buried her face in her arms. Liapanouff bent over her, shaking in the uncontrollable uprush of a dozen clutching fears.

"Leave the caves at once," he whispered in her ear. "Markoff—"

He could say no more, choked by his cowardice. After all, Hu could not escape. Markoff would succeed. If Liapanouff let White Lily go, his life would be at Markoff's mercy—and Markoff had none. Liapanouff had assisted at the jehad and he knew. White Lily did not stir. Liapanouff ventured no second effort to warn her. His own skin was too sensitive.

Hour after hour that strange trio, the broken girl, the stunned old man and the half-fainting agent of a new gospel, remained motionless, while the victorious hosannas of the faithful clanged and reverberated through the vast caverns like a dream of hell, and Markoff rallied his legions for the next betrayal. The "bloodless jehad of Kansu" was already history, and Markoff dwelt by preference in the present and the future. Already he was on the march.

* * * *

THAT memorable jehad, now but a troubled memory that would not sleep, had been imagined, put into action, and finished in the short space of forty hours. It began with Markoff's whispered suggestions to Hu. While White Lily fared forth alone to warn the missionaries and earn her rebuke from the lips of one of them, Markoff explained the details of the bloodless jehad to Liapanouff. The two agents wandered far into the secret places of the mountains in complete darkness, footsore and unafraid, confident of every step of the black way they had traveled a hundred times.

For fifty black miles or more the vast caverns of Kansu honeycombed the limestone mountains with a chambered labyrinth of calcite corridors and pillared halls, each shadowy antrum loftier than the nave of a great cathedral, curiously carved and hollowed from the living rock by water seeping drop by drop down to the subterranean rivers for ages. A tattered tracery of stalactites depended from the arched ceilings of these silent halls like the bleached banners of long forgotten armies, and massive pillars of all but transparent whiteness soared from the undulating pavements to bell out and vanish in the banners. Through some of these halls the distant rumor of rushing water echoed drowsily, but most were as soundless as the midnight of a desert. In others the oppressive stillness palpitated with a deeper silence, as if the blackness fell away to a bottomless void. These were the "forbidden caves," where the faithful never wandered.

The wise decree that forbade the curious to explore the forbidden caves was an ancient tradition that needed no enforcement. The torches of the first explorers who discovered them revealed these silent caverns for what they were: unsounded wells of darkness. No echo rose when a stone was thrown into those black gulfs. The scream of the condemned criminal hurled down one of those wells thinned and dwindled to silence long before the wretch who emitted it died. Hu the Good abolished this form of capital punishment which his fathers had sanctioned for generations, and the forbidden caves were roped off in eternal darkness.

In preparation for the jehad that was to be bloodless, Markoff and Liapanouff, feeling along the pitchy corridors, found the copper pins driven fast into the rock walls. They undid the knotted ropes, pitched them into the blackness ahead, and laughed. No slap of rope on rock answered. Silently as bats the two agents turned carefully around where they stood and felt their cautious way along the wide corridor of death, back to the main gallery, and thence to the audience hall of the prophet. They had prepared the road; they must now guide the destined travelers.

Without venturing to inform Hu that all was in readiness, they hugged the eastern wall of the audience chamber and flitted out under the crescent of the exit just as the evening shadows fell athwart the eastern hills. Turning to the north, they followed the path that White Lily had taken less than two hours previously.

While the agents toiled that evening to bring about the jehad, Hu sat dreaming alone in the vast entrance hall. For generations the Moslems had dwelt in these sacred caves. Every foot of the very hall in which the old man dreamed was hallowed by the blood of martyrs who had died for their faith. At first a persecuted handful, the faithful had fled in seasons of massacre to these friendly caves till the blood madness of their enemies abated, when the starving remnant would emerge to cry once more that "There is but one God and Mohamet is his prophet."

The indifference that sooner or later breeds tolerance on all sectarian hatreds preserved the Moslems. They multiplied and prospered. But they never forgot the holy caves that had saved their faith when it scarcely breathed, and the entrance hall became their Mecca. As the decades passed the feeling of awe and reverence mellowed to affection. The faithful found in the caves a warm shelter from the bitter mountain storms, and a haven of peace and comfort for themselves and their beasts. They stabled their cattle and stored the harvest of their fields in the dry caverns, and gradually found themselves living in the caves. The whole vast honeycomb in the limestone mountains became their citadel and their populous metropolis. Mindful of their harried past, the faithful, with a new appreciation of the good things of this life, depreciated the itch for martyrdom, trusted nobody, and cultivated human prudence. The narrower entrances were walled up against possible enemies. Only two secret exits, opening miles away on the mountain side, were left unclosed for emergencies. All that entered the subterranean city of the Moslems must pass under the crescent of the audience chamber, where the uncrowned king of forty thousand faithful reigned.

THEY had prospered and multiplied. But they never forgot their martyrs, whose unavenged blood was still visible by torchlight on the rose quartz floor of their holiest place where, once a year, they celebrated the feast of the dead. Nor could they lightly forget that their first prophet, Mohamet the implacable, put infidels to the sword. A rival, gentler faith, proclaimed the way of peace. Its cocksure converts belied its humane teachings by prophesying eternal fire for those who rejected it, and by riotous brawls among themselves to settle minute differences of doctrine. These blustering braggarts were ripe for chastisement. Hu had

prophesied. They should be chastised and corrected without the shedding of blood, in accordance with their own professed faith.

"It is good," Hu rumbled as he nodded drowsily, exhausted by the incessant labor of keeping the blood circulating through the mountainous billows of his flesh. "'There is but one—'"

But he was fast asleep. The battle cry of Islam expired in a futile puff on his lips.

While Hu dreamed of a whole world purged of infidels, Markoff and Liapanouff extended the olive branch of mutual understanding and love to the missionaries and their converts. All that evening, and late into the following afternoon, they labored to spread the glad tidings that strife between Moslem and Christian was forever at an end in Kansu. They were spiritual ambassadors, the two agents declared, from Hu the Good, to announce a perpetual truce between the warring sects. More, they offered their late enemies the healing balm of brotherhood. Would not all come early on the morrow to the audience chamber of Hu the Good, to seal the bond of a new friendship and celebrate the same with a feast of love in the less stately caverns? Not only would love in abundance be provided for their refreshment, but succulent food without stint. For a busy week had the most skilful cooks among the followers of Hu the Good toiled to prepare a feast worthy of the occasion and of the hospitable traditions of old China.

This greeting, larded and made enticing to the ragged with liberal promises of bounties beyond belief, was carried joyously by the smiling ambassadors from school to school, from one missionary residence to the next, and from squalid hovels to squalider market places. By the invisible telegraph system of all primitive peoples, the invitation swept the villages for a radius of thirty miles before the ambassadors of a new era of love had lied eight hours.

By nightfall the mean roads and trackless hillsides were a-crawl with a moving multitude converging toward the crescent mouth of the sacred mountain. By dawn of the appointed feast day the caverns of Kansu were jammed by a milling mob that clamored for the feasting to begin. Markoff and Liapanouff had returned before dawn, but they were not in the yelling crowd.

Not all who were invited to the feast accepted. The Christian telegrapher was not credulous. He stuck to his post and tried to call the governor of Shen-si. Many who would have come gladly were bedridden. Many more were too young to toil up the steep mountainside for a feast of love they could not understand, and more were too heavy to be carried by their mothers. There also were some few cynics who stayed away. Others had plenty to eat at home and did not hunger for heathen love. Of the white missionaries more than one hesitated long before subduing their unworthy doubts of a fellowman's offer of love, and consented only with reluctance to shepherd the glad pilgrimage of their converts. Three refused outright to go. If Hu had repented it was his business to come to them for forgiveness. Two who got as far as the crescent entrance turned back, unable to force their way in. One dreamy-eyed man with a gray beard, who had entered early and who stood near the exit, fled when the killing began.

It was a bloodless jehad. Not a sword was drawn, not a shot fired. An authoritative shouting and concerted waving of flares from the eastern wall of the cavern gained the momentary attention of the clamoring mob in the reception hall. The Moslems were inviting their brothers-to-be to begin the feasting. The flares receded into the gloomy cavern behind the announcers and a river of humanity streamed into the darkness. Presently the flaring torches reappeared at the sides of the black entrance as if to mark the hospitable portal. The volume of the mob moving slowly but irresistibly forward urged those already in the corridor of death onward to their doom. To the very lip of the black well the broad sluiceway was lit up by flaring torches stuck securely into copper sockets on the white, glittering walls. Within a hundred feet of the fall the crest of the advancing mob damned up in sudden panic. Their shouts of terror were drowned in the clamor of the main torrent. All knew now that they were betrayed. A tempest of fanatics armed with staves and stones broke upon the rear and flanks of the packed mob in the audience hall, herding the unarmed multitude to their slaughter. The crescent exit was barred by a regiment of gigantic men yelling the battle cry of Islam. There was but one motion possible, forward. As the tide vanished into the insatiable maw, the cohorts of the prophet swept the adjacent caverns clear of the curious, the laggards and the timid who had come early to explore, and who had dispersed like fallen leaves before the wind down the vast galleries when the feasting began.

Once more the tide in the audience hall swelled to its full volume, and again dwindled to a feeble eddy. Again and again as the sweepers worked farther and farther into the labyrinth of caves the living tide rose and fell monotonously. Crest after crest of the human river leapt the lip of the bottomless well to flutter out on the void in tattered spray. Not one drop of blood was shed.

* * * *

ONLY the memory of it remained. Drunk with victory, the faithful danced before their prophet who had purged Kansu of infidels. He did not hear their hosannas. A sharper clamor, now stilled forever, beat incessantly upon his tortured soul. When it was too late Hu had realized his folly. The sudden onslaught of his fanatical followers, when they burst like a whirlwind upon the flanks of the helpless mob, awoke him to the full horror of what he had done. His prophecy had engendered the slaughter. Rising to his feet he had lifted his mighty voice in all the strength and thunder which his older followers remembered from their youth, and which had not been heard in Kansu for forty years. For ten minutes Hu was young again, strong and dominant as he had ever been. But he could no more have quenched the mad fury of his followers than he could have put out the fires of all hell with his tears. He commanded, he besought, he prophesied, he wept; they were deaf. Not Mohamet himself could have stemmed that merciless slaughter. Exhausted by futile entreaties, Hu surrendered to his senility and sank back, an old and defeated man, staring blindly at the constant ebb and flow of the human tide. The rise and fall of that struggling mass no doubt had some significance, but what it might be Hu was too old to remember. At last the tide rose no more. The monotonous recurrence of ebb and flow gave way to an eternity of noise. He seemed to be alone in space, isolated in time. Once a white face seemed to be looking up in the extremity of fear into his own. It was a man's face, and familiar. But Hu could not recall whose it was. A huddled body lay at his feet; why did it not move? He knew that it was alive. The world had crashed and gone to pieces. Why did not the interminable echo of its ruin come to an end?

The celebrants petrified suddenly in their mad dance. Had they heard aright? Yes! The gigantic guards at the crescent entrance were shouting a warning that froze the blood in the hot veins of the dancers.

"The yellow banners!"

For an instant the gigantic Hu dangled the screaming wretch over the abyss. Then he opened his hand. Liapanouff shot from sight and his screams dwindled to silence

Markoff was returning with his new friend and dupe, the governor of Kansu. And after him marched a disciplined horde of armed men, who were neither Christian nor Mohametan, but merely Chinese. This was the fine flower of three months' masterly treachery. The Chinese Moslems had annihilated the Chinese Christians and their white friends; the Chinese of the older faiths would wipe out the victors. The yellow banner of the dragon in its turn should go down to defeat.

The advancing horde was well armed. In sending to his friend, the revolutionary general, the arms of the Moslems, the governor of Kansu had squeezed a tax of one rifle in every four. The arms of his own men were thus augmented by enough to swell his forces by two regiments. They advanced up the sunny mountainside singing.

The sudden cessation of the shouting in the audience chamber roused Hu to his senses. At his feet White Lily still lay like a crushed flower. She had heard the shout of the guards and she knew the meaning of the yellow banners. She did not stir. Why flee? By lying where she was she might drink deep of oblivion and win eternal peace before the hour was out. As Hu bent down to lift the wilted form the whole of what he had done flashed upon his mind. He straightened up lest his hand defile her.

Liapanouff, hearing the singing of the advancing Chinese, started to creep toward the crescent of yellow sunshine. Hu's huge bulk leaped after him. Again he was a young man. One enormous hand grasped the Russian's right arm and dragged the limp coward back to where White Lily lay. The audience hall was already deserted but for Hu, White Lily and Liapanouff. Like panic-stricken rabbits the Moslems had vanished to seek safety by hiding in the darkest caverns.

"White Lily," Hu said, "if you ever loved me, stand up!"

She stood, but avoided her grandfather's eyes.

"The yellow banners will be here in a few moments," Hu continued. His voice was that of a young man. "I know that you fear them no more than I, for sleep is sweet. If all your love for me is not dead, do what I ask. Take food and water for three days' journey and leave these caves by the hidden way that you know. Make your way to Shen-si and seek out the governor. Tell him all that has happened and ask him in my name to come here and make peace between my people and those who follow the yellow banner of Kansu. There must be no more killing. Blood cannot

wipe out blood. I am guilty and I will pay. My people must be spared. Hasten, or you will perish."

She flung herself in his arms.

"I will not leave you. Your death shall be my death."

"Go, if you have ever loved me!"

"I cannot, unless you come with me."

"How can I? This great body of mine would stick in the narrow places. But I will follow by another way."

"You promise?"

"I promise. It is a longer way, but I will join you when I am free. Hurry! They are almost here. Remember my message. Goodbye, my White Lily."

She ran to one of the caves where food and water might be found. Hu watched her out of sight. Confident that she was safe and would bear his message of mercy to the governor of Shen-si, Hu turned to his immediate task. Disregarding the screams and frantic struggles of the thing in his grasp, he dragged it with him toward the eastern wall of the cavern. The first of the avengers leaped through the yellow crescent just as Hu strode like a colossus into the black corridor of death. He shook the breath out of the limp rag in his hand.

"Be quiet! You have earned the wages of folly. If I should kill you I should do no wrong, for you are neither beast nor human."

An occasional torch still glowed somberly in its socket. The pair marking the lip of the well were flickering out fitfully the last remnants of their life.

"Open your eyes and look down," Hu commanded. For perhaps ten seconds he held the white face over the black void. "Have you seen?"

Crazed with fear Liapanouff screamed incoherent prayers which he had not uttered since he was a boy.

"Whatever you say is a lie," Hu cut in coldly. "No man can see the bottom of this pit."

A patter of hurrying footsteps sounded along the corridor behind them.

"Your friends would save you," Hu remarked. He threw the struggling wretch face down on the stone floor and planted one enormous foot firmly on his back. "I am Chinese," he continued calmly, as he quickly divested himself of his prophet's robes and tossed them far back into the corridor. "My people say it is good for a man's soul that he should die slowly with his eyes open. It is a long way to the bottom of this pit."

He stiffened, listening intently. The rabble of pursuit, headed by the panting Markoff, burst out of the darkness into the dying glow of the torches. Just before he stumbled headlong over the prophet's robes, Markoff saw the naked form of Hu bend swiftly down and grasp Liapanouff by an ankle. For an instant the gigantic Hu dangled the screaming wretch over the abyss. Then he opened his hand. Liapanouff shot from sight and his screams dwindled to silence.

Stepping back five paces to gain momentum, Hu raised his arms high above his head like a swimmer about to dive. Leaping forward he plunged into the black well without uttering a sound.

CHAPTER VII

The Dragon

TWO miles from Teng-shan, and about three-quarters of a mile from the entrance to the caves, Lane's men met the first survivor. A gray-bearded man, evidently a missionary judging from his clothes, marched along the road waving his arms and singing, in a high falsetto, shrill snatches of hymns. When he saw the column of marines swinging toward him he stopped and peered intently through the late afternoon sunshine as if to read fine script. Having deciphered the invisible words, he broke into a shout of laughter and yelled at the men, "Mahomet is God and Allah is his prophet!"

Lane halted the column and, with his first lieutenant, captured the man. They got nothing out of him beyond curious perversions of the battle cry of Islam, an incoherent torrent of words, and the remark, whispered with an air of great secrecy, that he had denied his master. They turned him loose to wander at will.

"There seems to have been a massacre or something," the lieutenant observed. "Crazy as a loon. Acts as if he were shell-shocked."

Lane agreed, and the column marched on to the cracked singing of "Onward Christian Soldiers" by the madman. He was still singing when they rounded a buttress of the foothills and swung into full view of Teng-shan and the entrance to the caves.

"It still seems to be going strong," the lieutenant remarked, referring to the jehad. A sharp order brought the men to the double, pounding over the rubble in an oblique ascent to the crescent entrance. The last regiment of the army with the yellow banners was just about to stream into the caves. That tail-end alone outnumbered the marines five to one.

Lane's orders were to provoke no bloodshed. They seemed ludicrously superfluous in the present circumstances. The Chinese were fully armed. One flick of the dragon's tail would wipe Lane's column off the hillside. The huge body of the brute, its real fighting strength, was of course out of sight in the caves. What remained visible was an ample warning to use common sense. Lane decided to halt.

Leaving the column in charge of his subordinate officers, he went forward alone with the interpreter to parley. A white flag, handkerchief or other mark of truce seemed unnecessary. If the Chinese wanted to fire, a piece of cloth wouldn't stop them. Why should it? Lane argued, mistakenly imagining that these men were butchering the missionaries and their converts.

The crawling dragon tail ceased moving. The Chinese officers had noticed the strange troops arriving on their private battlefield. They were too astonished to order a volley, even if such seemed the best policy. The interpreter showed signs of nervousness.

"They will shoot," he muttered, and bolted like a rabbit down the mountainside toward Teng-shan.

Lane paused long enough to speed the fugitive with a parting curse and proceeded toward his objective, wondering how the devil he was to make himself understood. As he was to learn in a moment he needed no interpreter.

A lean vulture of a man in European civilian clothes emerged from his station at the entrance to the caves and advanced to meet the captain.

"Looks like a Russian," Lane remarked to the hillside in general. "Probably a red at that. Well, I guess the boys are in for it."

Markoff opened hostilities at once. It was no accident that had posted him on sentry duty outside the caves while the Chinese marched in. Having witnessed the end of his fellow agent, and not being a man of outstanding courage, Markoff deemed it prudent to return to the exit and wait outside until the last of his new friends entered. He was off with the old love forever, but the old love had not yet been heard from. A sudden flurry of Moslems might well do to him what Hu had done to Liapanouff. Like all diabolically cruel men, Markoff was a physical coward from skin to marrow. He now studied Lane's uniform minutely.

"American?" he screeched.

"Can't hear. Come closer."

"Are you Americans?" Markoff demanded from the comparative safety of thirty feet.

"Marines. Looking for white missionaries. Know any?"

Markoff ignored the inquiry. His rattlesnake jaw set and a mask of fanatical hatred froze on his cruel face.

"The governor orders me to tell you that he will tolerate no capitalistic aggressions in the province of Kansu. Your presence under arms here is an act of war. Surrender unconditionally or be shot down."

A startlingly vivid image of a bungalow in Los Angeles slowly crystalized on the air before Lane's eyes. He saw Isabel reading on the veranda. Four-year-old Tom was dangling a piece of paper at the end of a string before the indifferent nose of the lofty Hoot. Isabel laid her book aside and got up to shift the sprinkler from the lawn to the bed of marigolds. The colors dissolved and the curiously real mirage vanished.

The inconsequential interlude cleared the captain's mind. He could not afford to get killed. Nor could the boys behind him. They were worth more than their life insurance. He must use his head and bluff it out somehow.

"From Moscow, aren't you?" he asked casually, as if Markoff had not delivered his awkward ultimatum.

"Surrender or be shot!"

Lane appeared to consider. He realized that an appeal to the governor would be futile. Without his own interpreter he was helpless. This red fanatic would translate Lane's questions concerning the missionaries into a declaration of war upon China by the bankers of America. Surrender probably meant death by torture. He temporized.

"Not so fast. All we want is to get track of the white missionaries and escort them back to Shanghai. We met one about a mile back on the road. Where are the rest?"

"In there."

Markoff jerked his head in the direction of the cave. He could not restrain the smile that twisted his lips like a grinning snake's. Lane guessed, but guessed wrong.

"Being killed?"

"No. They're all dead."

"Then what's all this fuss about?"

"A punitive expedition. The Moslems massacred the Christians. These soldiers are Chinese—neither one sect nor the other. The governor is in command. He will stand no religious riots in his province."

"That's a sound policy. Where do you come in?"

"The Moslems murdered my fellow adviser to the governor of Kansu."

"And what was *he* doing?"

"What business is that of an American like you?" Markoff screamed. "Capitalist robbers and murderers! Surrender unconditionally, or I advise the governor to open fire at once."

"All right. I guess what you say goes with him. My orders are not to fire until we are deliberately fired upon. Now, just this for yourself. Those boys behind me will put up one hell of a scrap when you do give the signal. Don't bite off more than you can chew. The whole United States army and navy are behind us. You know what that means, I guess."

MARKOFF was listening. Encouraged by the beginning of success, Lane tried a little bluffing. Had the Russian been as sure of himself with the governor as his ultimatum seemed to imply, he would have ordered the firing to begin immediately, instead of listening to a speech

"The rest of the marines are just a few miles east of us in Shen-si. They will be here tonight or early tomorrow morning. If they find us missing they will hang the governor and chase you as far as Moscow—if you're a good runner. Then one of them will stick a bayonet into you where it hurts most. Better reconsider your ultimatum. Tell the governor we only want to look for the missionaries. Give him my promise that we leave without firing a shot the minute our job is done."

Markoff leered in the captain's face.

"You tell him yourself."

"I would, like a shot," Lane replied indifferently, "if I knew any Chinese."

"Where's your interpreter?"

"Back there with the boys. He was too scared to talk, so I left him behind."

"Call him now."

"Too much bother. You speak English like an Englishman anyway, so what's the use?"

"None. I'll be your interpreter. Come with me."

"No, thanks. If those Chinks shoot me in the back before I reach my men—look out. They'll get you, too."

"I don't think so. Your men are good, but they can't shoot round a corner. I shall retire to the cave. Good-bye."

Lane turned and sauntered unconcernedly back toward the column. The game was up. Well, if he failed to reach his immediate objective the boys would give a good account of themselves. Too bad it had to end this way. If that damned interpreter hadn't bolted things might have gone differently. He glanced up at the blue sky, involuntarily, like a man about to be executed. The field of his vision included the dip in the mountains which marked the pass from Kansu into Shen-si. Could be believe his eyes? An exclamation burst from his lips. He turned in his tracks and shouted to the retreating Markoff.

"Look there! Coming down over the pass. That's ours!"

Already a faint hum droned on the evening air. The Chinese stood paralyzed with fright. The drone rapidly swelled to a whirring roar and the wings of the huge creature became visible to their staring eyes. With yells of terror their regiment broke and scattered in panic down the mountain side. Not one of those dwellers in primitive Kansu had even seen a flying dragon that roared and smoked as it outflew the wind. The huge bombing plane swooped directly toward them, circled thrice at full speed low above their fleeing rabble, and soared suddenly upward with a rush to spy out a safe landing place. The terrified Chinese, governor, officers and all, lay stiff with fear where they had fallen, or crawled mechanically over the rubble in search of safety.

"Into the cave!" Lane shouted, not waiting to see where the plane landed.

The marines rushed the entrance without opposition. Markoff, however, had preceded him. Lane caught a fleeting glimpse of him in the dim light trailing the Chinese who fled in all directions into the blacker shadows. They, too, had heard the awful roar of the dragon. In fact the cave acted as a resonator to intensify that terrible sound a hundredfold. In five minutes the marines had the audience hall to themselves. The governor of Kansu was among those who had retreated to Teng-shan.

Lane lost no time in digging in. Guards were posted at the entrance of all the caverns opening into the audience chamber and a double guard at the crescent entrance to the whole vast labyrinth. They located the stores of torches, flares and food. Comfortable beds were dragged out of side caves, and half the men at once turned in for a four-hour sleep while the others mounted guard. It was better than being in barracks at home.

The governor's soldiers were not the only victims of panic caused by the roaring, smoking dragon. A few

minutes after sunset White Lily emerged from the inconspicuous secret exit. This was a black hole, no bigger than a large badger's burrow, in a desolate jumble of shattered rose quartz that had burst through the ancient limestone. Exhausted of body by her long crawl through the last miles of the narrow burrow, and still stunned by the memory of the jehad, she sank down on the rocks and fell fast asleep. Although she had planned to travel all night she could not go on. The natural reaction of her flesh after a day of horror overcame her spirit.

In that brief, deep slumber she lived again the whole eighteen years of her life, including the last day. The clamor of the victims in the cavern again rang in her ears. Then it became a strong, resonant voice prophesying doom for all whose bloodlust makes them lower than the brutes. The voice of her dream gathered volume and prophesied that the innocent brutes who slaughter one another for natural sustenance, and not for the sake of righteousness, shall also perish from the earth. The prophecy became a destroying roar that foretold the end of all plant and animal life. Suddenly she woke in terror, conscious that she was not merely dreaming.

The golden twilight still lingered on the evening air. She must have slept for a few moments. Gleaming like burnished copper in the yellow light the huge body of some strange flying creature cleft the air directly over her head, and straight as an arrow shot with the speed of a dream down the pass toward the entrance to the caves.

She had no conception what it was, or what might be its purpose. A false instinct, bred by her vivid dream on the black memory of the morning, whispered that this monster had left its lair beyond the mountains to avenge the slaughter of the Christians. Did not their teachers prophesy that the angels would descend with flame and sword and judge and damn all unbelievers? She had heard this from the very beggars who threatened her with everlasting fire. Her grandfather was guilty. With his own lips he had sworn to pay the price of his guilt. This fiend of the air had come to collect that price.

"I will pay," she cried. Filled with a new strength she raced down the mountain side and ran as she had never run in her life toward the crescent entrance. "Wait, wait! I am coming."

ABOUT half an hour after Lane had posted his sentries, the man on outpost duty in front of the entrance heard resolute footsteps crunching up the mountain side in the dark. At his peremptory challenge the footsteps halted instantly.

"Take me to Captain Lane," a voice shouted through the darkness. "I'm sent here by General Maitland. From my voice I guess you know I'm white. As I know nothing of military etiquette you'll have to use your common sense and pass me. My business is urgent."

After the usual formalities Maitland's messenger was brought before the captain, who stared in astonishment at the hatless, baldheaded elderly man in a baggy alpaca suit.

"May I ask who you are, sir?"

"Jonathan Saxby. Personal messenger from General Maitland. I must deliver my message in private."

"Very well. Come this way."

When they had withdrawn out of earshot of the men, Saxby plunged into the middle of things.

"General Maitland instructed me to convey this verbal order to you: 'If Russian agents cause you any trouble, eliminate them, but use discretion and employ all means in your power to avert a clash between Russia and the United States.' Now," Saxby continued, "I suppose it is clear why General Maitland chose to transmit that order by word of mouth rather than on paper. Code is too easily deciphered. And if you are the man he takes you for, you won't go shooting reds in broad daylight on the village streets."

"All that is obvious enough," Lane remarked. "But what I can't see is this. How did General Maitland know there was a Moscow agent within a thousand miles of here? The Chinese prohibit the use of wireless by foreigners, and the telegraph lines are out for three hundred miles."

"General Maitland didn't know," Saxby replied, "until I told him."

"And how did you find out?"

"Intuition," old Saxby chuckled. "By the way, *are* there any Russians in the neighborhood?"

"One that I know of. There seems to have been another, but the Moslems eliminated him."

Old Saxby burst into a roar of laughter.

"Well, I'm hanged," he choked in his spasm. "There is something in what I made Maitland believe after all. When you get back to Shanghai tell him from me always to act on his nerves."

"Didn't you know of these agents?"

"I? How could I? Moscow means nothing to me. Anyway, I'm here." He stopped suddenly and stood staring at the floor of the cave. All his mirth had evaporated. "This is bad," he said. "The ideal conditions again—limestone and quartz. How long have you been walking about in here?"

"Since your plane landed," Lane replied, thinking he had to deal with a lunatic. "You got us in for the first time."

"Is that the uniform you had on when you left Los Angeles?"

"No." The captain was too dazed to resist answering.

"What did you do with the other one?"

"As the salt water had ruined it—I was pitched into the sea, I suppose you know, when the *Sheridan* sank—I borrowed some clothes from one of the officers on the *Sherman* and chucked my own overboard. Then in Shanghai I got a complete new outfit."

"Shirt, shoes and all?" old Saxby demanded tensely.

"Yes. But what is all this about, anyway?"

"Another experimental error!" Saxby groaned. "I might have known. Of course the immersion in salt water would ruin your clothes. I'm as blind as a bat. Why in thunder didn't I see that before I left Los Angeles? Here endeth my wild-goose chase. Thank Heaven the Russian agents didn't turn out to be a myth. I'll have something to tell Maitland. Well, I had better be going."

He started toward the exit of the cave. In one stride Lane overtook him.

"You might tell me what it's all about before you leave. I'm curious. You don't look cracked."

"I'm not. Merely a bungler, that's all. Oh, by the way, I almost forgot. Your wife asked me to give you her love and tell you to take care of yourself."

"Thanks. But you didn't fly over a thousand miles from Shanghai just to tell me that, did you? According to your own account you went to a lot of trouble to fool the general in order to get here. Again, my wife knew you were coming. There's a big rat under all this. Sergeant!"

The sergeant stepped briskly forward and saluted.

"Put this man under arrest."

"What the devil do you mean?" old Saxby shouted. "I'm not in the army."

"From now on you are. And until you find your tongue you clean the cave—or boil rice."

"I *can't* talk."

"All right. Shut up."

Bedding was found for the prisoner and, protesting vociferously, a bed was made up on the floor. The guard was no amateur at swearing, but old Saxby almost made him blush. Finally the guard had to silence him forcibly as he was disturbing the men asleep. Saxby neither slumbered nor slept.

Barely had Lane disposed of this problem when another was presented to him. Two of the sentries half led, half carried an exhausted young Chinese girl before him. Her blue tunic was torn and her shoes were mere tatters of rags. One of the men held up his torch so that the captain might see her plainly. He looked into a pair of eyes that had seen death and a face of great beauty that would never lose its fixed tragedy.

"What's the trouble," he asked gently.

In reply she wailed over and over again some phrase in Chinese.

"She evidently knows no English. Damn that interpreter! Bring the prisoner here."

Old Saxby was walked up under guard.

"Know any Chinese?" Lane demanded.

"Not a word."

"Did you bring an interpreter with you?"

Saxby shook his head.

"The pilot and the mechanician are both young fellows in the navy. But, if I may offer a suggestion—"

"Go ahead."

"The telegraph night operator says he is a Christian. He seems to know some English. I left him trying to talk to my boys. They stayed with the plane of course." He scanned White Lily from head to foot. "This girl seems about all in. If I weren't under arrest I would suggest that you give her my bed. Her feet are nothing but bleeding pulp."

Lane looked down.

"Put her in the prisoner's bed and get hot water to wash her feet. The prisoner will attend to her."

OLD Saxby fished into his capacious coat pocket and drew out Yang's notebook and two clean handkerchiefs.

"I've had enough arrest," he remarked, opening the green stained notebook and extracting a small folded paper. "I know when I'm licked, and I'll talk any time you care to listen. This may help you to believe me." He handed Lane the slip of paper. "Is this your wife's handwriting?" He carefully restored the notebook to his pocket.

Lane examined the writing minutely and nodded. The note read, "Believe what the bearer of this paper tells you."

"You are no longer under arrest, Mr. Saxby. I must attend to this first."

The captain ordered the sergeant to take two squads down to Teng-shan, find the telegraph night operator, and bring him at once to the audience chamber. Rejoining Saxby he found the latter standing doubtfully by the side of White Lily's pallet with the handkerchiefs in his hand. A dish of water and antiseptic stood ready by her feet.

"It has just occurred to me that I had better not touch her," Saxby explained. "My hands and these handkerchiefs may be infected. She has evidently run a long distance over flints and broken limestone practically barefoot. I can't take the risk of touching her. Not so long ago I saw a Chinaman come to a very bad end. It is just beginning to dawn on me what may have been directly responsible for his peculiar death. The circumstances of this girl's injuries are much like those of the other case. Hadn't your surgeon better attend to her?"

"He's asleep, all in. Here, I'll do it. I asked you rather than one of the ambulance men to do it because you are older than any of us, and somehow it seemed more decent. Some of these oriental women don't like young men doctors. Let me have your handkerchiefs, will you?"

Saxby hastily thrust them into his pocket.

"That's just the point. I'm convinced now that they're badly infected. So are my hands. I'll explain later. Tear off a piece of her own clothing. She's only half conscious."

Lane tore off a piece of her sleeve and did the best he could.

"That will have to do until the surgeon wakes up. I suppose she's a Christian convert. Naturally she would run to us for protection. There seems to have been a hell of a row—the Russian implied as much. We're too late to be of much use I guess."

They left her moaning. It was not physical pain that distracted her.

"I will pay," she repeated in her own tongue, believing she knew what price would be demanded of her, and not fearing it. She would suffer anything to pay her grandfather's debt and thereby win mercy for her people and eternal oblivion for herself.

"Now," Lane remarked to Saxby, "let's hear what you have to say. First, exactly how did you ever get here?"

Old Saxby, not without a ruffle of pride, recounted how he had worked upon General Maitland's nerves and how the nerves had done the rest.

"The upshot of it was that he packed me off in a bombing plane at six in the morning, Shanghai time. We should have been here two hours earlier—it's only a little over a thousand miles—if the pilot hadn't lost his way in the fog over the mountains. It was all plain sailing as long as we could see the rivers. After that it was dead reckoning. Still, he did a good job."

"He saved us. That infernal Russian would have told the Chinese to fire. We might have shot a few hundred before cashing in our chips; but we hadn't a dog's chance of routing them. And I doubt if we can hold this place if they have machine guns—which they probably have. The Russians have been arming the Chinese for the past two years. Well, we shall see. Now what about the rest of it? Why did my wife write that note?"

"First let me explain why I should prefer to hold my tongue, and why I tried to until you put me under arrest. What I have to say may disturb you about the safety of your own family. In such a mental condition you wouldn't be fit to lead the band at a Sunday school picnic, much less an expedition in a hostile country. You almost certainly would run into danger by not being able to concentrate on your job. Before going farther, I want to emphasize that there is not the slightest ground for worrying about anything in Los Angeles. It was all quiet there when I left, and I feel sure it will remain so. My theory *must* be right that far. Again I didn't want to tell you anything because it was unnecessary. The more people who know about what may happen somewhere, somehow, the worse for us all. If one lets it out prematurely the whole world will hear of it. Now, have patience with me. I'm trying to break it gently. I don't want any panic. Must you have the story, or will you let me go back to Shanghai in the morning—provided we have enough gas left?"

Lane laughed. "Let's have the story. From your hints I judge it will be exciting enough to keep me awake. I dare not turn in till daylight—if then. Shoot."

"Very well. You are sitting opposite a man who is more dangerous than a billion tons of dynamite. I may explode at any minute—how, exactly, I don't yet know.

But I may. You noticed, of course, that I did not touch the girl? And have you noticed that I am very careful not to touch anything with my hands?" The captain nodded. "All right. I must ask you to lend me a pair of leather gloves. Some of the men must have a pair—any kind will do. I can't hold my hands up indefinitely. The gloves must be leather."

Thinking again that he had to do with a lunatic who needed humoring, but who might have information of some value, Lane sent an orderly to fetch a pair of leather gauntlets from his own kit. When they were brought Saxby held out his hands for Lane to put them on.

"Safety and prophylaxis first. I mustn't touch the outsides. My hands may be infected. If there is a fight and I get killed, don't bury me near sand or limestone. See that my body is burned in the hottest fire you can make, and keep the fire going for at least forty-eight hours. Don't forget. Your wife told you to believe what *I* say. The first thing I say is this: I am not crazy. The second—"

He was interrupted by a sudden disturbance at the entrance. Lane hurried to see what was happening. Saxby followed. They found two of the guards wrestling with a man apparently out of his mind.

"I must see the Commander!" the man shouted, struggling to get free. "Take me to him. Ten thousand Christians will be slaughtered if—"

"I am in command here," Lane said quietly, confronting the man. "We met you on the road late this afternoon. You were singing. Remember? What's on your mind? Is there going to be another jehad?"

"Another?" the missionary repeated in a daze. "Has there been one?"

"I don't know. A Russian told me there had. He said the dead are in here, somewhere in these caves. They may be, for all I know. We can't search till we find out how strong the enemy is. What do you know about it all? Come over here and sit down."

THE gray-bearded man followed obediently. Lane passed within a few feet of the spot where White Lily lay, and went on some yards so that their talking might not disturb her. Glancing back to see if he was followed, he saw the missionary standing like a statue of haggard old age at the foot of White Lily's pallet, staring down at her. Lane joined him.

"Ever seen her before?"

"How did she get here?" the man muttered hoarsely. "I left her just before sunset and I know she did not overtake me on the way. I ran."

"Come over here and tell us about it. Things will straighten out as you talk. Now," he resumed when the dazed man had seated himself on an outcrop of ancient granite, "begin at the beginning and let us have it all."

The missionary's account was coherent and apparently straightforward as far as it went. The dates, however, were inverted. He said that two Russians, Liapanouff and Markoff, had issued an invitation to all the Christians of Kansu to seal a pact of perpetual peace with Hu the Good and his Moslem followers. He went on to relate that the Chinese girl, now lying exhausted but a few feet away, had warned him of treachery, saying that the Christians, once enticed into the caves, were to be massacred. She had told him so that very evening. The jehad, she declared, was to take place the following morning. He had come, the missionary declared, to intercede with the Moslem soldiers and to lay down his life, if necessary, to warn all converts away from the trap.

"You are sure the girl warned you?" Lane asked. "Possibly at the risk of her own life? Her people, I take it, will kill her if they hear of her treachery. That's what it is, you see, from their point of view. Sure this is the same girl?"

"How could I forget her after what she told me?" He stopped suddenly, staring into Lane's face as if he saw a spirit. "Where have I seen you?" he whispered.

"On the road. Just before sunset. Don't you remember?"

The man shook his head, struggling to pierce the black clouds that baffled his memory.

"Ask him if he speaks Chinese," Saxby suggested in a low tone. "Most probably he does, unless he has forgotten how."

"I'm coming to that," Lane replied under his breath. He addressed the missionary. "Perhaps the Chinese girl can tell us something. You speak the language, of course?"

"Like a native. I have taught the gospel fourteen years in Teng-shan."

"That's fine. See what this girl has to say. Ask her what happened after she left you. By the way, you said the names of the Russians were Liapanouff and Markoff?" The man nodded. "One is a lean fellow," Lane continued, "with a sort of hawk face and a ratty mustache—brown, like his hair. Which is he?"

"Markoff."

Lane turned to Saxby.

"That's the bird behind us somewhere in these caves with an army of crazy Chinks. I think I'll act on General Maitland's orders and shoot Markoff on sight. He seems to be a pretty bad egg."

The missionary was bending over White Lily, peering into her eyes. Seeing who confronted her, and imagining that the avenger of the Christians had come to lead her to death, she sprang up with an eager cry.

"What does she say?" Lane asked quietly.

"She says she will pay."

"For what?"

In reply to the dazed old man's cross-questions White Lily told him with ghastly brevity exactly what had happened. They might kill her, she concluded, if they would spare her grandfather. He was not responsible for the jehad; he had tried to stop it when it began. He was an old man, not strong of mind. She was more to blame than he, for she had humored his childish fancy when Markoff and Liapanouff corrupted him by months of flattery and suggestion. In exchange for her life she asked that they promise not to harm her grandfather, and that the governor of Kansu be made to prohibit any killing of Moslems in reprisal. Hu himself had said that blood cannot wipe out blood, also that he alone was guilty. She, not Hu, was guilty; let her punishment settle the score forever. They might throw her into the well of darkness at once. She was ready, and would be glad to forget it all.

When the missionary finished his translation Saxby and the captain cross-examined White Lily sharply concerning the details of the jehad, asking finally for an estimate of the number slaughtered.

"She says ten thousand."

"Clearly an exaggeration," Lane commented. "There never were that many converts in the whole of western China. The rest of her story hangs together. She hasn't contradicted herself once on cross-examination."

"Not once," Saxby agreed. "Her ten thousand is natural enough. To anyone with the instincts of a human being the number must have seemed practically infinite. If this is the sort of thing our race—for these fiends were men like ourselves—is capable of," he continued savagely, "I feel tempted to let nature take its course and wipe out our kind forever. The only excuse for not doing so is the fact that occasionally our human race does breed something better—like this Chinese girl.

We must prevent these Chinamen from butchering the Moslems next. She has earned that much from us."

He was cut short by the ecstatic singing of the madman.

"'Ten thousand times ten thousand
Are clad in robes of white—'"

"Shut up!" Lane ordered. "Tell this girl that neither she nor her grandfather will be killed. My men will permit no reprisals. Tell her we do this merely because she has shown us how."

"Are the guilty not to be punished?" the missionary demanded.

"Certainly. But not by murder, either wholesale or retail, with one possible exception. The Russian agents seem to be responsible. One is dead. The other will be captured. We shall give him all the rights of a court-martial. If he is found guilty he will be executed. If you have an ounce of common sense you will see that the girl, or her grandfather, is right. The moment the governor's men start killing the Moslems—at the very first reprisal—a religious war will break out here and it won't end till the whole of Asia, including Russia, and most of the rest of the world is drenched in blood. I'm going to use my horse sense. Never mind the law of the case. Now give the girl my message and give it straight. If I find out that you have made any mistake I'll put you under arrest. I expect another interpreter of my own here by sunrise or very shortly after."

As surely as a bear the scowling madman translated Lane's message.

When she grasped its meaning White Lily flung herself at Lane's feet.

"You did it," he said. "I wish you could understand English. Don't thank me."

They left her to herself.

As they walked away, the madman began expostulating.

"I shall go to the governor myself!" he finally shouted in an insane passion.

"No you won't," Lane snapped. "Corporal! Put this man under arrest. He is not to be let out of this cave until we leave. Treat him decently. He's sick in the head."

"What will you do if the governor attacks?" Saxby asked when they were alone.

"He won't. I have other plans. But, if the worst comes to the worst, you must fly back as far as your gas will take you and make the rest of the journey any way you can. Tell General Maitland the whole story. He will know what to do. But I doubt whether the full threat of the whole American and British armies and navies will be able to put out the fire if it once starts. I'm betting that it won't, but I'll have to step lively to prevent it. You stay here and keep an eye on that missionary. If he starts making speeches, clout him. I don't want the boys to get a false view of the situation. They'll fight the Chinese better if they don't know the whole story. If those men return with the telegraph operator before I get back, take charge of him, too. Now, there's nothing to be frightened of while I'm away. This place is a natural fortress and we're on the inside. The first lieutenant will be in command. He has a level head. In case of trouble, do exactly what he tells you to do, and do it in a hurry. Well, I'm off."

"Where are you going?"

"Tell you when I see you."

Saxby watched the captain waken twenty picked men to accompany him on his hazardous mission. They marched out of the cave just as dawn streaked the sky.

CHAPTER VIII

Lane's Cards

LIKE many of the greatest commanders in history, Lane believed firmly in taking the offensive and keeping it. The Chinese outnumbered the marines at least a hundred to one. Should the governor of Kansu order an attack as soon as his men recovered from their fright, the Americans would be wiped out in half an hour. Although the captain had declared to Saxby that the position of the marines in the cave was impregnable, as a soldier he knew better. A few machine guns in the hands of strategically placed Chinese would clear the entrance in two minutes and then would keep it clear. A resolute leader who did not mind the loss of some hundreds of his men—provided his own life was not thereby endangered—could take the cave in a rush any time he cared to give the order. Lane and his twenty men were now on their desperate mission to plant a bomb under the governor's probable strategy.

On a long, smooth slope about half a mile south of Teng-shan they spied the bombing plane resting comfortably on the stubble like an enormous grasshopper. Ordering the men to proceed to the town slowly, so that he might overtake them, Lane detoured to interview the pilot. The plane had the sunny slope to itself; not a sightseer was visible.

The mechanic was on guard. He saw Lane coming and woke the pilot. Lane went straight to the point.

"How much gas have you left—how many miles?"

"Enough for seventeen hundred under good flying conditions," the pilot replied. "Less, of course, against strong headwinds."

"Fine!" Lane exclaimed. "You have plenty to fly back to Shanghai and do five hundred miles of stunts. I may want you to stage a show here. You can see the entrance to the caves. One of you keep an eye on it with your glasses all day. Take it in spells. I'll be going back in about an hour. You know how to read our wig-wag signals? All right; there will be a man with a white flag posted outside the cave. If he starts signaling get the message and act on it immediately."

"Can you give us some idea of what we shall have to do?"

"No, because I don't know myself. It may be nothing. Be prepared for anything. By the way, have you any bombs?"

"Four. But our orders were to drop none unless we were attacked by anti-aircraft fire in flying over the Chinese lines."

"Never mind that. Technically you will be attacked if I call for bombs. Most likely I shall need only some fireworks to scare the tar out of the Chinese. If I call for stunts, do your damndest and put on a real show. Scare the livers out of them. I'll send you rations and fresh water as soon as I get back to the cave. Keep the Chinese away by starting up your engine and making all the noise you know how if they get curious."

He hurried off to overtake his men. Entering the town they met the exhausted sergeant and his two squads, still searching fruitlessly for the telegraph operator. Lane explained that they now had an interpreter at the caves and ordered the men to return there and rest. As he and his twenty men marched up what seemed the main street, indifferent Chinese slouched to the doorways and followed the foreign devils with lacklustre eyes. Not a Chinese soldier was in sight. "It looks like a trap," Lane remarked to himself. Then, to a corporal, "follow that line of telegraph poles."

Guessing that the operator would be in his place of business, Lane kept his eyes open for the telegraph office. He found it without difficulty by noting where a small cable connected a shabby building with the wires. The door was not locked. Striding in, Lane bagged his bird, or rather a brace. His own recreant interpreter was chatting with the night operator, whose "watch" lasted till ten o'clock. The captain contented himself with a single well-placed kick and turned the deserter over to his men. From the night operator he learned the location of the governor's palace.

"You come along and show us the way," Lane ordered. "You say you're a nice missionary boy. Now prove it by not getting lost, or I'll show you a short cut to Heaven."

Nearing the governor's palace on the outskirts of the town they understood why they had seen no soldiers on their search through the streets. The entire tail of the governor's army was camped around and in the palace grounds to protect his sacred person from foreign aggression. The governor had not yet recovered from his fright at the smoking dragon. He realized now, of course, that it was no supernatural monster, as the inquisitive and cultured telegraph operator, who knew all about airplanes from the missionaries, had told him so late the previous evening. But he rightly suspected it of being some devilish new kind of war bird capable of laying more infernal eggs than any that even a Chinaman has dreamed of.

The Chinese sentries promptly halted the marines. Lane played his first card. Through his interpreter he ordered—he did not make the mistake of asking—the officer in charge of the sentries to tell the governor that the commander of the American forces demanded an instant audience. The officer obeyed. He was absent fifteen minutes. During that uneasy wait Lane took time to note that the Chinese had more machine guns—evidently of Russian make—than they could possibly require, also that their rifles were of the latest pattern. Their supply of ammunition was ample, not to say prodigal. The wooden boxes containing the reserve supply were stencilled with both Chinese and Russian characters.

When the envoy returned, he informed Lane through the interpreter that the governor would receive him on two conditions. First, Lane and his interpreter alone would be admitted to the august presence provided they left all their arms with the Chinese sentries at the gate. Second, during the conference, the Americans at the gate were to surrender their arms to the Chinese sentries.

Lane accepted these terms without argument. He felt that the governor would offer no better.

"If I'm not back in twenty minutes," he told the men, "walk away as if nothing had happened. Go back to the caves. I shan't be following."

The governor, attired in a loose yellow robe, gorgeously embroidered, was seated behind a long teakwood table in a large, heavily beamed room as bare as an empty barn. Behind him a fully armed guard of six men stood stiffly at attention. Taking no chance on the interpreter's nerves, the captain grabbed him by the arm and hustled him to the table.

"Tell the governor this," he ordered. To emphasize his remarks he banged his fist on the table directly under the governor's nose and began shouting in the angriest tones at his command.

"You have let your people murder American missionaries. I place you under arrest and I order you now to come with me and stand courtmartial in the cave where you butchered them."

The governor, who had jumped six inches when Lane banged the table, turned the color of his robe when the interpreter translated the bluff. His reply was a feeble attempt to prove an alibi.

"He says the Moslems killed the missionaries."

"Tell him," Lane roared, "not to argue! The Moslems who killed the Christians are Chinese. As governor of Kansu he is responsible."

The governor's color improved somewhat. He turned a purplish green. The blood was finding its way again to his brain. He pondered Lane's legal theories in silence. Then, having glanced behind him to see that the guards were still there, he put his simple, disconcerting question through the interpreter.

"Why should I go to the caves?"

With the air of a humane judge informing a murderer precisely why it was his painful duty to impose the death penalty, Lane explained in a level voice.

"Tell him this, bit by bit. Tell it slowly, so he will understand it all. First, if I am not back at the airplane within a certain time, the two men in it have orders to blow Teng-shan off the face of the earth. They will fly high and drop their bombs out of a clear sky. The people of Teng-shan, including the governor of Kansu, won't even see the plane—it will be so high. But they will know it is somewhere in the sky when the first bomb hits this palace. Second, if I pass the plane without the governor, and if a single one of his soldiers is seen following me and my men back to the cave, the plane will at once fly back over the pass into Shen-si. We are only the advance column of a very strong American force—easily able to wipe out the Kansu army in a morning engagement. But our main army will probably not have to advance at all. There are five hundred bombing planes with it. The planes will fly back and forth over the pass for a week, or for longer if necessary, until they have bombed every farm house, village and town in Kansu into a dusty hole in the ground. That's all."

FROM the expression on the governor's face as he absorbed sentence after sentence of the ultimatum, Lane believed that the bluff had worked. With an air of unconcern he sauntered toward the door, expecting the governor to follow him. The governor, however, did nothing of the kind. To his horror Lane heard the governor and the interpreter exchanging a rapid cross-fire of questions and answers. What could it mean? The interpreter suddenly shot past on his way to the door.

"Halt!" Lane shouted.

Involuntarily the interpreter halted. Taking two strides forward Lane grasped him by the back of the neck and shook the wind out of him.

"Where are you going?"

"I can't tell."

"Why not? Spill it, or I'll break your neck!"

"The governor's soldiers will shoot me if I tell. Let go!"

Lane felt himself seized from behind. The governor's guards were not asleep. One banged the butt end of his rifle down hard on the captain's wrists and the interpreter bolted. The governor was not only more or less of a gentleman but also an extremely cautious man. At a word from him the guards let Lane go. It would be unwise, the governor believed, to abuse this blustering American until the exact value of his threats was ascertained.

Presently the interpreter returned, followed closely by the telegraph night operator. In a flash Lane saw what was about to happen. He played his last desperate card. If this failed to take the trick he was cleaned out. The telegraph operator had declared that he was a Christian convert. His knowledge of English, however,

was not extensive. Gambling on the chance that the boy would understand, and that he was indeed on the side of the missionaries, Lane deliberately chose the simplest words he could find to phrase his plea to the operator.

"Tell this man," he pointed to the governor, "the truth. The man in Shen-si will tell you we have a big army there with five hundred airplanes. Tell him this when you come back." Lane was careful not to let his own interpreter overhear.

An all but imperceptible flicker of an eyelid is more eloquent than volumes of oratory. The operator caught Lane's. He understood exactly what he was being asked to do. Would he do it, or had the missionaries ruined his native genius for lying? Lane silently prayed that the operator might still be an artless child of China. The governor was no fool.

"What did the American say to you then?" he demanded.

A look of almost angelic piety lit up the operator's face.

"He told me to tell you the truth."

"Then ask him for me whether there is time for you to telegraph to Shen-si before the plane begins to drop bombs."

Lane replied that he thought there would be time. The governor took the chance, but told the operator to run all the way to the telegraph office and not to dally on the way back.

Either by instinct or from a Chinese sense of humor the operator took all the time he needed in the office. Lane expected him back in forty minutes. A full hour passed. The captain began to smile. He glanced suggestively at his wrist watch. The governor fidgeted. Lane believed the operator was having his little joke on the governor. The more intense the suspense the greater would be the relief with which the governor would choose courtmartial instead of bombing. But as the hour lengthened to two, Lane felt that the joke was going too far. By signs he prevailed upon the governor to send one of his guards to see what had happened to the operator. They met just outside the door.

"Is it true?" the governor demanded.

The operator, breathless from his long run, struggled to reply.

"It is true," he panted. "All western Shen-si is full of American soldiers. They have big guns and five hundred airplanes."

The governor rose hastily. With an air of well-controlled anxiety Lane pointed to his watch, then to the beamed ceiling of the room. The governor ran. At the door Lane glanced back at the operator.

"Come to the caves tonight. We'll take you back with us."

The operator's face was a beautiful mean between the Mona Lisa smile and a subtle Chinese grin. He had told the truth as he saw it, and he was pleased with himself. The big guns were his own contribution.

"You not know me," he remarked. "Other night I tell you over wire in Shen-si for God's sake hurry."

At the palace gate Lane and the shaken governor found the twenty marines hanging about and looking sheepish. Two hours had passed.

"I thought I told you to go back to the caves," Lane snapped, "if I didn't come out in twenty minutes."

"Our watches all stopped five minutes after you left, sir," the corporal informed him, offering his as evidence.

"Fall in, and march ahead of us to the caves," Lane ordered sharply. He thought it best to ignore the remarkable coincidence of twenty watches stopping simultaneously. The men grabbed their rifles from the governor's guards and obeyed.

Forty minutes later, old Saxby, anxiously scanning the slope up from the town through the lieutenant's field glasses, made out Lane's men marching rapidly toward the caves. A few paces behind the men Lane was trying to keep up. A stoutish man whose resplendent yellow robe outblazed the morning sun was leaning heavily on the captain's arm and impeding his progress, Saxby guessed.

"By Jove!" he shouted to the sentry behind him, "the captain has captured the governor of Kansu."

Old Saxby had become panicky at the long absence of Lane's party, and had left White Lily in charge of the surgeon, to go out and keep watch for the captain. In case of visible danger in the town he was to report at once to the lieutenant in the cave. Seeing that all was now rather better than well, he sprinted back to the cave to tell the lieutenant.

"They ought to make him a field marshal or something for this," he concluded enthusiastically. "That boy has a head on his shoulders. With the governor in here as hostage we can send the missionary into these black holes to tell the Chinese to come out. Then the governor can send them all home. We'll keep him till we don't need him any longer—say half way across Shen-si. And we needn't let him go until he gives us a cast-iron guarantee that he won't touch the Moslems when he gets back to Teng-shan. We—"

"Zing!" a bullet sang as it just kissed Saxby's ear and passed on.

The staccato commands of the lieutenant were drowned in the instant uproar that burst upon the silence of the audience chamber from a hundred black galleries. Mobs of yellings, shouting Chinese soldiers boiled into the chamber from the caverns like a sudden eruption of vermin swarming over a carcass. The guards at the entrance to the rock caverns were swept aside like chips and hurled back against the walls. Saxby found himself isolated a few feet from White Lily. His instinctive thought was of her safety. She was small; he was strong, and his blood was up. He tucked her under one arm, seized a heavy torch with his free hand, and started to follow the main body of the marines who were retreating toward the eastern wall of the cavern. This chanced at the moment to be the nearest objective offering protection for their backs.

"Hold your fire!" the lieutenant shouted, seeing Saxby and his burden directly in the line of fire.

The front of the advancing horde parted in the middle and a flying wedge of gigantic Chinamen issued from the gap and shot like an arrow toward Saxby; a sudden surge forward of the right wing of the enemy completely cut off his retreat. Saxby found himself with his back to a thousand yelling Chinese and his face to the racing wedge. He dropped White Lily at his feet and grasped the torch with both hands. The head of the wedge misjudged its mark. The leader saw only an old man with a stick. He saw nothing more, because Saxby's torch caught him full whack on the side of his skull and broke his neck. The next got a shattered arm. The third, quick witted, and more agile than his predecessor, swooped low, grasped White Lily's tunic with one hand, snatched her to his body, and fled like a streak before Saxby could swing at him. Two more were disposed of before the torch snapped in his hands. For a sixty-year-old man he had put up a pretty good fight. He realized that it was all over. His one regret was that he did not have a revolver. For it had not escaped his notice that the flying wedge carried no arms. Their orders, therefore, were to capture, not to destroy the enemy. Saxby guessed who had given the order. From Markoff's record in the caves it was but reasonable to expect an unpleasant death.

Two more were disposed of before the torch snapped in his hands

Instinct forced him to fight to the last ounce of his strength, although reason coolly told him it was useless to struggle. Obedient to their orders, and anticipating a prolonged feast of cruelty, the Chinese took great care not to injure their captive. They produced short cords, trussed him up like a turkey about to be roasted, and carried him off swinging from a pole between two sturdy porters.

A SUDDEN lull in the pandemonium presaged the coming of the storm in all its fury. What had preceded was but a preliminary gust announcing the tornado. It broke with terrific violence from all points of the compass at once. Unable longer to restrain their hatred of their ancient enemies, who had kept them bottled up for sixteen hours in the damp and dark, the Moslems hurled themselves upon their Chinese brothers. The Moslem who dies in battle fighting for his creed goes straight to the Moslem paradise.

The vast system of caverns became a black hell of milling humanity churning itself by sheer, brute weight to pulp. The enemies were too intimately engaged for firearms to count. The Chinese soldiers dropped their rifles or had them ripped from their hands. In the half light of the vast entrance hall, where men could distinguish ally from enemy, the killing at first proceeded with some discrimination. In the other caverns each gouged whatever came to his hand. The floors of black caves that no foot had trod for a generation grew slippery under the incessant patter of innumerable feet, and the steady splash of sullen water drowned the cries of faithful and infidel alike as they plunged by hundreds into the unseen subterranean rivers.

Through it all the marines stood with their backs to the eastern wall of the entrance, not firing a shot. It was not their fight. To attack would be wanton suicide. A concerted rush from that infuriated mob would sweep them like chaff into one of the black caverns behind them, or crush them to death against the rock walls between the black holes. Retreat to the crescent exit was impossible. The Chinese soldiers had blocked that possibility at the start.

Gradually the mere numbers of the Chinese soldiers in the audience hall began to count. The indiscriminate trampling set in a definite direction like a football scrimmage gaining—or losing—headway. The whole mass moved slowly away from the entrance toward the main caverns. As the soldiers gained ground those on the outskirts of the mob picked up rifles from the floor and took up their position in the rear. They knew what was coming. Shots zipped at random over the heads of the mass. These had the intended effect. Unarmed and exhausted, the Moslems broke, became a rabble, and fled yelling into the darkest caverns.

The audience hall now belonged to the Chinese soldiers and the marines in the ratio of about four to one. The disparity would have been much greater had not the main body of the soldiers been busy elsewhere. The insane fight still raged with unabated fury in the pitch darkness of the labyrinth. Under the orders of their officers the Chinese in the audience hall retired to a line about a hundred yards from the eastern wall.

One hundred yards happened to be precisely that range at which they habitually made their best score in target practice. Their officers, of course, did not withdraw to the new line by mere chance.

"Steady," said the lieutenant. He felt that the marines' turn was next.

It was. As the red tongues leapt from the rifles of the Chinese the marines dropped as if shot to the floor. A spatter of bullets rained upon them from the wall behind. The rest whined harmlessly into the black holes.

"Rush them when I say, Go." The lieutenant gave the order as coolly as if they were enjoying a Fourth of July sham battle in a city stadium. "Are you ready?"

Before he could say "go" a volley from the entrance crashed into the cave. Against the brilliant sunlight of the crescent, Lane's twenty men looked like a regiment to the imaginative Chinese. They retreated another hundred yards. Then they stood their ground. Safety, in the shape of numerous black caverns within a minute's fast run behind them, gave them courage. They also were curious to learn the exact strength of the enemy. To their surprise they saw two figures detach themselves from the thin line across the entrance and walk boldly into the cave.

"Where's the missionary?" Lane shouted.

"Here, sir. Behind us."

"Send a man forward with him."

When the madman was brought up, Lane studied his face critically.

"I suppose you are rather upset by all the shooting, but pull yourself together. Who is this man?" he asked, indicating the governor.

"Pontius Pilate," the missionary replied promptly.

"Snap out of it! This is the governor of Kansu. Tell him this for me. He is to order all of the Chinese over there to come forward, ten at a time, and surrender their arms. If he does not, I will shoot him, myself. Translate!"

To emphasize the threat Lane held his revolver pressed against the governor's back while the latter shouted the order for disarmament at his men. The Chinese hesitated.

"What did the governor say?" Lane demanded of the missionary.

Before the missionary could reply the high, piping voice of a Chinese officer was heard expostulating vociferously.

"Catch everything that man says," Lane ordered. "It may cost us all our lives if you don't."

The officer was objecting to the governor's order. Why should the Chinese lay down their arms? Just give them half a chance and they would clear the cave of every American in it in two minutes. The governor began to sweat. If his men mutinied now he was one dead Chinaman.

"Tell the governor," Lane ordered, "to explain to his men how strong our main army in Shen-si is. Tell him not to forget the five hundred bombing planes."

On this wholesome advice the governor became quite eloquent. His speech evidently impressed the soldiers. The first ten marched forward, deposited their arms at the governor's feet and retired. Soon a huge stack of rifles and another of cartridge belts and bayonets rose like hastily improvised earthworks before Lane and the governor. In half an hour the Chinese in the audience chamber were disarmed. Such is the creative power of a vivid imagination working on credulity. True fighters would have seen the marines in Hades before complying with such an order.

The Chinese were to enjoy a stronger taste of discipline. At an order from Lane the marines rounded up the mob and set them at fatigue duty. First the magazines of the rifles were emptied of their shells. Then, through the governor, fifty of the vanquished were ordered to carry all of the shells and cartridge belts, under an escort of marines, into the place of massacre and pitch the lot into the black well. This done, the rifles followed. The Chinese were then ordered to police the labyrinth and round up all the followers of the governor. At his command all were to come at once to the audience chamber and bring not only their own arms but also any they might stumble over in the dark.

This, of course, was a long job, and doubtless many stragglers, firearms and all, remained in the less accessible caverns. Nevertheless, the disarmament must have been at least ninety per cent efficient. It was to be still more thorough. Lane ordered the governor to explain to twenty of the superior officers exactly why the Chinese troops were being disarmed. He added that they were under no compulsion to obey orders but if they refused, the American army would annihilate them on the following day and, on the day after that, destroy every building in Kansu by systematic bombing from the air. If on the other hand, they chose the part of common sense and obeyed, and if, further, they gave sufficient guarantees that they would leave the Moslems in peace, the United States Army would withdraw at once without a single reprisal for the slaughtered missionaries.

IT worked beautifully. The last act in the mopping up took over two hours, but it paid. Under a guard of marines the governor and the twenty officers he had instructed were hustled back to Teng-shan. There, as fast as possible, they despatched small contingents of the soldiers still camped about the palace, with all the military supplies they could stagger under, to the caves. Unopened boxes of ammunition, machine guns and hundreds of new rifles were pitched into the well of the massacre.

By four o'clock in the afternoon the disarmament was practically completed. The governor stood near the entrance, inside the cave, watching the last contingent of Chinese toiling up the slope. These men brought nothing but half a dozen machine guns and forty or fifty wooden boxes of ammunition for the guns. Lane and his first lieutenant stood beside the governor. They were tired, Lane particularly. The job was about finished and it was well done. For sheer lack of ammunition and arms the anti-Moslem Chinese would be unable for at least a year to trouble their turbulent brothers.

Lane and the lieutenant were laughing and joking over the ease with which they had worked the bluff. Bit by bit—for the captain was a modest man—the lieutenant pried out of him the whole story of his bullying of the governor and the effective myth of a huge American army with five hundred bombing planes just beyond the pass into Shen-si. At the moment the rest of the Americans were far back, supervising the Chinese in the audience hall and in the gallery leading to the pit.

"Your imaginary army," the lieutenant laughed, "has done a quicker clean up than the whole U. S. A. and U. S. N. combined could have done. And we have only lost twelve men, including Mr. Saxby." These all occurred in the first rush, when the Chinese swept the guards off their feet.

"You will lose them all in the next hour," a thin, dry voice remarked directly over their heads.

They spun round and saw nothing but a smooth, enigmatic wall of limestone. Instantly the same voice harshened and lapsed into Chinese.

"Markoff!" Lane shouted, making a grab for the

governor. But the governor had heard the first Chinese sentence in the air, and it was enough.

"The Americans were lying about the army and their bombing planes in Shen-si," said that airy Chinese voice.

Before the captain could stop him the governor was racing down the slope, yelling orders at his men with the machine guns. It was too late to shoot him. The machine gunners were already bursting the ammunition boxes with the heaviest stones they could lift.

"Shall I shoot?" the lieutenant yelled.

"No!" Lane shouted back as he ripped off his tunic. "If he's killed it means war with China. Get the men out before the Chinks start firing!"

The Chinese were already feeding the first strings of cartridges into the machine guns. Lane lept back to the entrance and, with frantic haste, signalled with his tunic a short, desperate order to the pilot in the bombing plane. Were the two in the plane watching the entrance to the cave as he had ordered? And if they were, would they be able to take his message? The first machine gun rattled into action. Before the bullets sprayed the rock ten feet to the left of where he stood, Lane saw the smoke shoot from the exhaust of the plane as the huge insect sprang forward for the takeoff. Lane leaped back into the cave, out of reach of the machine guns, just as all six began spitting as one. He had played his last card. It looked like the joker.

CHAPTER IX

Markoff's Theft

UNDER the Czars, Markoff most likely would have been a chief of secret police. He was that type —cold, cowardly, and sensually cruel. Under the Moscow communists he found his true trade. As a confidential agent to China he had opportunities for betrayals and wholesale murder on a scale denied him in Moscow. The natural genius of the Chinese for inhuman forms of punishment incited him to jealous competition. They, after all, were but amateurs; he rather conceitedly classed himself as the expert professional. If such men as the infamous Letchine and certain of the bloodier czars, generals and prelates of old Russia were not commonplace, amply documented historical personages, Markoff could be dismissed as an impossibility. The historian of a thousand years hence will look back on these men and, with a superior smile, deny that they ever existed. Their common disorder seems to have been a queer type of perversion, which after all is not so rare, even outside of Holy Russia. In the prolonged infliction of pain they experienced a voluptuous pleasure. If unable to enjoy both, they preferred massacre to love in any of its more usual forms, and one and all they were physical cowards of the lowest type. Incessant brooding upon what might happen to their own hides, and imaginative exaggerations of every trivial pain, drove them over the verge of insanity and lashed them to more violent excesses. Mad dogs are shot on sight; the Markoffs and the rest achieve eminence in statecraft of a sort.

While the Chinese were engaged in sweeping one another into the subterranean rivers, Markoff was in the singularly happy position of having everything he wanted. He had enjoyed one massacre and hoped shortly to witness another, and his love was within easy reach. He might take what he had coveted for months any time the girl came out of her silly faint.

White Lily, as a matter of fact, had not fainted. She was not that kind. The brain in her was better than Markoff's vapor of brutish instincts, and she knew how to use it. So long as she lay on the limestone floor like a dead rabbit, and as uninteresting, she knew she was safe. Her captor would not pester her till she came to life. In the meantime he was getting a great deal of pleasure out of old Saxby. Should Saxby's impotent rage pall on the insatiable Markoff, White Lily might try a trick or two which Hu the Good had taught her. She could take care of herself—for a while, anyhow. Markoff and Saxby conversed in English, so White Lily missed the gist of their remarks. Nevertheless she guessed that the old American, who somehow reminded her of her grandfather, was in a great fright.

Saxby was indeed scared half out of his wits. You may succeed in temporizing with the executioner, or you may be able to argue the inquisitor out of giving the rack an extra twist, but you cannot reason with an ignorant fool. There is but one way to reach a brain like Markoff's, and that is with a bullet. Saxby had only his eloquence. It made not the slightest impression on the void of Markoff's intelligence.

The cave where Markoff "questioned" his prisoner was one of the two which the earliest Moslems had enlarged on either side of the crescent entrance. Originally these caves were mere pockets in the limestone wall of the entrance, reached by tortuous, narrow burrows from the audience hall. When the persecuted followers of the Prophet first began using the caves as a refuge in time of massacre, they cut a peephole in the wall of each pocket so that the invisible sentry might spy on all who sought to enter the caverns. The peepholes could be closed by little slabs of limestone which fitted perfectly. Later the pockets were enlarged to capacious, airy guard rooms and liberally provided with food, torches, water and sleeping accommodations. At the same time the astute Moslems blocked the ancient waterways which were the original means of communication with the hall, and scooped out of the soft limestone an elaborate maze of narrow tunnels connecting the guard rooms with the audience chamber. The guards, of course, never lost themselves in these mazes; it was hoped that enemies might, or at least be heard by the guards in time to be knocked on the head.

As political and spiritual advisors to Hu the Good, Markoff and Liapanouff soon learned the shortest way to each of the guard rooms. In fact the two agents believed they knew all about the caves long before they ordered the jehad. Hu told them much; personal explorations told them more. They knew of one secret exit in case of extreme danger. Hu either forgot to mention the other to them, or kept it to himself as an old man's secret to be shared with no one but his pet. Neither Liapanouff nor Markoff was told of the secret way by which White Lily left the cave when Hu told her to go and seek out the governor of Shen-si. The snakelike Markoff might easily have crawled through it; the puffy Liapanouff was too gross. The other secret exit could readily have extruded Liapanouff, had not Hu the Good shown him a broader and quicker way out.

Either of the guard rooms by the crescent entrance offered Markoff the ideal cubbyhole from which to direct operations while the marines occupied the audience chamber. The instant the marines rushed the caves when the bombing plane routed the tail end of Chinese army, Markoff, already half way down the audience chamber, hastily collected a bodyguard of three superior Chinese officers and bolted with them for an inconspicuous black hole in the north wall of the chamber. Presently he and his panting escort found themselves in the comfortable guard room at the north side of the entrance. The peephole gave them a view of the entrance, of the long, rocky slope leading up to

it from Teng-shan, and of at least a part of the interior of the audience chamber. Markoff followed with interest practically everything the marines did. He witnessed the arrest of old Saxby by Lane and speculated on its significance. Were the damned capitalists divided among themselves? Before he had solved this thorny puzzle to the satisfaction of his reptilian instincts, Markoff saw White Lily arrive breathless and with bleeding feet and, a few minutes later, he observed Saxby and the captain consulting over the girl, apparently on the best of terms. At this point of his observations Markoff moistened his thin lips with his bright red tongue. He determined to possess White Lily, then and there.

Markoff's desire begot the Chinese attack that came within an ace of sweeping all the marines off their feet. At his orders the three Chinese officers departed to round up enough of their men to launch an effective offensive. The flying wedge was Markoff's conception. White Lily was to be brought to him alive. The American in civilian clothes also was to be captured, if possible. His person in any event was to be bound and carried as intact as feasible to the guard room for Markoff's inspection. Markoff's theory was that the old civilian who had come by airplane must be a figure of some weight in the councils of capitalism. Probably his clothes were rich in documents which would expose the United States as the secret enemy, not only of liberty at large the world over, but of communism in particular. And not unlikely there would be found on this person detailed plans for the invasion of Mongolia, Russia and China. The lieutenant in command of the marines was ignored. Eventually he was to be slaughtered with the rest, of course, but he probably was of no importance. Markoff had seen Lane leave the caves and, in a general way he had guessed the captain's mission. Being a one hundred per cent coward himself, Markoff could not conceive of another man taking his life in his hands for a forlorn hope. Therefore, Markoff reasoned, the American forces in China must be strong and not far from Teng-shan. He would wait until the captain's return to decide upon his further strategy. In the meantime he could pass the hours profitably with the imagined ambassador and pleasantly with White Lily.

The flying wedge of Chinese under picked officers did its work well. White Lily, unfortunately in a dead faint, and the capitalist ambassador were delivered whole at his feet. Having borrowed a bayonet from a Chinese officer, Markoff dismissed all of his faithful followers, closed the peephole and proceeded to business.

White Lily gave no trouble. Her "faint" was so deep that she scarcely seemed to breathe. She knew how to play "possum" better than the animal itself. Saxby was a tougher problem. He must be made to talk without being given a chance to make himself heard by the sentries who might march past the closed peephole. When Saxby was flung down by the guards he let out a roar that might have been heard in Teng-shan, had not the Chinese in the audience hall been raising such a prodigious racket at the moment.

Markoff easily solved the problem. He ripped off half of Saxby's shirt and stuffed most of it into the captive's mouth. Old Saxby, of course, did not open his mouth wide at Markoff's invitation to accept the gag. The agent was compelled to force the prisoner's mouth open with the bayonet. Then, to teach his captive the folly of future resistance, he heated the tip of the bayonet red hot in the flame of a torch and proceeded to use it. Saxby was so tightly bound that his struggles quickly exhausted him. When Markoff got through with his discipline, Saxby could not have shouted if he had tried. Before removing the gag Markoff cautioned the prisoner that if he raised his voice above a whisper, the bayonet, then resting with its point on Saxby's throat, would instantly cut off his remarks before he could finish them.

Markoff's first question concerned the fighting strength of the "American force" which Lane, in his parley on the slope, had told him was on the march in Shen-si. Saxby's whispered denial that he knew anything about it earned him a short repetition of the third degree. Seeing that his prisoner might lose his mind if pressed too far, Markoff, like the experienced inquisitor he was, desisted. Saxby by this time was pretty much of a wreck. The things that one civilized human being will think of to do to another would pass the belief of almost any undomesticated beast. The beasts kill their prey or their enemies and let it go at that. Markoff, heir to a more cultivated taste, enjoyed himself. Nevertheless, he got precisely nothing out of old Saxby that might give him the slightest clue to the real strength of the Americans. Therefore, he must wait until the captain returned, when the subsequent proceedings would probably enlighten him.

HAVING exhausted his ingenuity to make the prisoner talk, Markoff turned to the easier problem of picking his victim's pockets. Saxby was now but half conscious. His condition was quite genuine, not feigned as was White Lily's. Markoff therefore thieved without a protest from the thievee. Like a gorged condor he flopped down on the limestone floor beside his prey and fished for tidbits.

Markoff was not avaricious. The gold watch did not even tempt him. Greed for material goods is not one of the communist vices. The loose change he also cast aside. A sheaf of receipted club bills and a steamer ticket first claimed his attention. The incriminating letter head "Army and Navy Club, Shanghai," told the excited agent a great deal that was not so. The date of the steamer ticket also filled him to the gullet with fat, plausible lies. Finally, a typewritten circular letter announcing the date of the next meeting of the National Scientific Council in Washington, D. C., with Saxby's name typed in the proper place, completed the evidence. Saxby stood, or rather lay, convicted of being an important personal agent of the President of the United States. He had been sent to Shanghai with secret orders to the capitalist generals at the Army and Navy Club, Shanghai, and possibly also to the large army of the international bankers in Shen-si. Such was the astute agent's reasonable but somewhat puerile deduction.

Here Markoff began to sweat. If the American forces from Shen-si arrived in Kansu before he escaped from the caves, he would be court-martialed and shot for having "questioned" Saxby. If, on the other hand, he destroyed the evidence against himself, he would be accused of having murdered the American. Then he would be shot, probably without a courtmartial.

Suddenly he saw a happy way out. The moment the marines left the caves—they would probably evacuate when their main force came up—he would induce the Chinese officers to take the roped prisoner and send him to join Hu. The officers, disliking the capitalist Americans as much as he, would gladly do their part and enjoy the joke. While they were laughing at their pleasantry, Markoff himself could slip out of the cave by the secret exit known to him, and leave the Chinese to settle for his little joke. Once safely on the mountainside, miles from Teng-shan, he felt that he could easily escape and make his way back to Moscow to report. What a report that would be. Flushed with proud anticipations of his chief's praise, Markoff resumed his systematic thievery with zest.

Rolling the still unconscious victim over on his side, Markoff brought the unexplored coat pocket into view. With a sibilant exclamation like a snake's hiss, he pounced upon the bulging pocket and clawed out a fat, untidy notebook blotched all over with virulent looking green stains. The evil color had soaked into the pages in half circles and long, fingering streaks, as if someone had spilled a full bottle of green ink on the half-opened book. Nearly every page had its green blob; some were completely dyed.

As he fluttered the leaves of Yang's notebook, pausing at every other page in a hopeless endeavor to understand the apparently meaningless jumbles of numerals and chemical equations, Markoff almost regretted that he was an ignorant enthusiast with but a vestigial brain. But he actually was incapable of such regret. He lacked the necessary nerve connections to beget such an emotion. He merely fluttered the leaves like an illiterate idiot. All these letters and figures must mean something, the more so as they had come out of the prisoner's pocket. But what? That was the painful question. Markoff almost laughed as the ready means of solving his puzzle presented itself. Seizing a dish of water he dashed the contents into the prisoner's face.

Saxby did not come out of his stupor at once. When at last he groaned and opened his eyes, the first thing he saw was Yang's notebook in Markoff's right hand. Instantly he forgot his pain in alarm at what the ignorant vulture before him might do with that green curse.

"Put that back in my pocket!" he shouted.

Markoff reminded him that he must not raise his voice. Saxby continued in a lower voice.

"You utter fool! Put it back where you got it, I say! You don't know what you are doing. Put it back!"

Markoff, convinced now that he had captured the enemy's most important military document, ignored the insult.

"This is important?" he taunted, fluttering the pages in Saxby's face.

The barrage of curses and abuse which he drew in reply but strengthened his superstition. He became crafty and coldly cruel. With a smile he picked up the bayonet."

"You read this for me."

He indicated a green page of chemical formulas and simple mathematical calculations. To his surprise Saxby capitulated at once. The string of names which the prisoner reeled off, of course, made no impression on Markoff's vacuum.

"You are lying," he said.

"I read you exactly what is written there. Don't you recognize a few elementary chemical names when you hear them? They can't be so very different in your own language."

"Chemistry?" Markoff snapped like a rattlesnake. He knew about explosives and poison gases, and he knew also that chemistry was at the bottom of them. That much he had gathered from the military experts during the endless round-table discussions at headquarters in Moscow. "These are military documents?"

"No. Purely scientific. No military value whatever."

"You must think I am a child," Markoff sneered. "If I cannot see the military value of this I know men in Moscow who can. As soon as your men leave this cave I am going out by another way. And I shall go straight back to Moscow. With this."

"You damned fool! You'll never get half way. That book is more dangerous than all the explosives and poison gases of all the armies of the world. Put it back in my pocket before you drop it. Look out—!"

Saxby's frenzied shout was brought out by Markoff's blundering with the book. Trying to handle the bayonet and turn the pages at the same time he had almost dropped the green abomination on the floor.

"Be quiet!" he snarled, as he slipped the book into his pocket.

Saxby closed his eyes and groaned.

"You unutterable fool. You will never know what you have done. If I told you it would do no good. You have no mind. But for your own sake, if not for the sake of the world, take that thing a thousand miles out to sea and drop it overboard if you *must* steal it. Never put it down anywhere. Leave it in your pocket. Don't touch anything with your hands after handling that book. Treat it like the plague—"

"A new poison?" the dull-witted agent queried. He was too stupid to keep his hand out the pocket into which he had stuffed the book.

"Oh, what's the use?" Saxby groaned. "What good is it to tell you that it is probably more dangerous than a thousand Asiatic plagues? You are rotten with it already."

Markoff smiled a silly, cruel smile.

"And after I return from Moscow," he scoffed, "the United States of America will be rotten with it, too. One of the generals was talking of something like this a year ago. Diseases; they shall be our new weapons. You capitalists were coming over here, through China, to try them on us. Now I understand you. I see why the Army and Navy Club in Shanghai sent you in an airplane. You need no soldiers to invade our country. One page of this book in a lake or river that waters our people, and you have conquered them."

Markoff became almost lyrical over the imagined possibilities. In spite of himself he began to prophesy and to take a lascivious pleasure in the slaughters he predicted. Here was something that spoke directly to his cruelty, and it found him eloquent.

"But the capitalists," he concluded, "not we, shall die by millions."

"I grant you the first," Saxby flung at him. "As to the second, I doubt it. You yourself may be the first to go."

"I think not," Markoff smiled. "You shall precede me, but by another way. As I told you, I am going to Moscow. But, before I leave, you will join Hu the Good."

With brutal brevity he described to Saxby the end of Hu the Good as he had witnessed it in his futile attempt to save Liapanouff.

"You will join him," he repeated.

FOR some moments Saxby made no reply. His burns and the weals from the cutting ropes were about as much as any sane man could endure and keep his sanity. His excitement over, pain gained the upper hand and took a grip on his usually clear mind. His reply was not that which he would have made in his senses. Nevertheless, it may be recorded for what it may be worth.

"After seeing you," he said, "and after thinking in cold blood of what has happened in these caves, I believe it will be better for the world if nature does take the other course. You, after all, may be the greatest benefactor the human race has ever known."

"I know it," Markoff agreed, visualizing in his sublime ignorance a conquest of the world by red disease in the hands of his present friends, and later, in the happy future, their own extinction by civil strife of a similar kind. "And do not forget," he reminded Saxby, who showed signs of relapsing into unconsciousness again, "that you follow Hu."

White Lily stirred, all but imperceptibly. She had

heard her grandfather's name mentioned several times by Markoff, and she could no longer control herself. Her muscles betrayed her. The slight movement did not escape Markoff's keen, reptilian eye. Instantly he was at her side, bending over her, gabbling in Chinese. The one word that she had understood so far was her grandfather's name. Now she could no longer feign unconsciousness. She knew that Markoff was aware of her deception. And less bearable than the thought of what probably would happen to herself was the agony to learn what had happened to her grandfather. Springing to her feet she confronted her tormentor.

"What have you done with him?" she cried.

Saxby swore, cursing himself for his inability to understand Chinese. The girl's distress spoke a universal tongue which any man could comprehend, and here he lay, powerless and dumb to shout her even a word of warning. For all he knew she might be swearing away her soul to the evil beast leering into her face.

Markoff found himself on the horns of a ticklish dilemma. To tell the truth might kill her on the spot and rob him of his lust. To refrain from torturing her would let slip an exquisite pleasure that could be had for the taking. A trick of memory cast the decision. He remembered her threat when he and Liapanouff had told her that the jehad was to be bloodless. As he remembered vividly the icy fear which had shot up his spine at the vagueness of that threat. So she was Hu's right hand, was she, to reward him for his share in the jehad? He jeered in her face. He would tell her where Hu's body was, and exactly how it got there. It would be the most tingling cruelty of his career.

She heard it to the end without a movement and without expression on her face. If any shred of her heart was still unbroken it broke then.

"I would have paid," she said, and turned blindly to make her way back to the audience chamber.

Markoff's talon of a hand detained her.

"Not yet," he murmured ingratiatingly. "You are too beautiful in your sorrow." He remembered the remark from a Russian drama.

Although he understood none of the words, Saxby read Markoff's intentions easily enough. To distract the fiend's attention, he began shouting. Instantly Markoff was upon him. But he had not relinquished his grip on White Lily's arm. The listless girl, already dead in spirit, was dragged after her possessor. With his free hand Markoff stuffed the gag back into Saxby's mouth. Now he was free to do what he pleased. Before doing it, however, he decided to take a look through the peephole and see how things were going with the Americans.

He removed the small slab of limestone just in time to see the Chinese, in the cleared cave, line up for their hundred yard shot at the marines. This was too good to be missed. Keeping a firm grip on his prey he abandoned himself to ecstasy. When the marines dropped to the floor at the volley he mistakenly imagined they had been shot to a man. His disappointment at seeing them rise to a crouching position lasted but a moment. He guessed that they would rush the enemy. Then there would be sport worth seeing. He licked his lips, and all but bit his tongue in two when Lane's men stepped into his field of vision and delivered their salvo that saved the minute—if not the day—for their side.

Fascinated between alternate hope for a sudden massacre and fear that the American army had arrived and was deployed on the mountainside beyond his field of vision, he stood for hours watching every incomprehensible detail of the disarmament. When White Lily struggled to get free he put a hand over her mouth and whispered that if she did not keep quiet he would kill her—horribly. He knew how.

As the day wore on and the machine guns began to follow the rifles into the pit he became almost insane with fear. The Americans must have captured the whole province. They would shoot him—or would they hang him? He couldn't live to go through that. Rather than stake his lean neck against the one chance in millions of escape he would be his own executioner. His free hand stole to his vest pocket and his numbed fingers fumbled for the slippery capsule. Then, like voices in a dream, he heard two men talking directly below him on the other side of the limestone wall. Their every word floated up to the peephole. They might have been addressing their remarks to him. Knowing that he was saved he bided his time, waiting for the strategic moment. The fewer armed Chinese abroad after the grand finale the safer his own skin. He waited till the last possible moment. Then he spoke.

Leaving the peephole he sat down by Saxby to rest. He would defer pleasure till all business was out of the way. The Chinese were already attending to that.

CHAPTER X

Paid

MARKOFF sat and waited, smiling at the rattle of machine guns and the crack of rifles which penetrated the thin limestone partition between the entrance and the guard room. He dared not enjoy himself at the peephole for fear of getting a wild bullet in the eye. In fact he began to perspire freely at the thought of some more energetic slug piercing the barrier of his ambush. He of course knew nothing of Lane's signal to the bombing plane. It had not even occurred to him that the plane might carry bombs. In his superstitious questioning of Saxby, he had overlooked the only practical details.

In signalling his order to the pilot Lane knew exactly what he was doing and how desperate was the chance he took. Intuition told him that where Markoff was there also would be found Saxby and White Lily. It was to be a case of kill or cure. There was no alternative.

Remembering the captain's instructions the pilot made all the noise mechanically possible. With a deafening racket he soared up the slope, flying at about twenty feet from the ground, and shot roaring directly toward the knot of machine gunners. They were on the shortest line to his objective anyway, so he took them in. Screaming with terror the Chinese gunners bolted. One died on the spot from an overworked heart. The plane shot on; the gunners were not its meat.

The terrific roar of the plane's approach became plainly audible in the guard room. Recognizing that muffled drone as the angry voice of her dream on the mountainside, White Lily, in an access of superhuman strength, wrenched herself from Markoff's grasp and fled down the black tunnel toward the audience chamber. The instinct for self-preservation snatched her away; her lacerated feet were insensible to pain. Stunned by the rapidly increasing roar, Markoff got to his hands and knees. Slavering with fear like a mad dog he started to crawl toward the tunnel. His elbows turned to water and he collapsed like a snake with a broken back. He dreaded nothing definite, yet he believed that his end was upon him. Saxby feared nothing at all, for he had not the slightest anticipation of what was about to happen.

It happened all at once. A thundering impact on the roof directly over Markoff's head was swallowed instantly in the overwhelming rumble of an avalanche of

shattered stone. Half a mountainside, jarred from its equilibrium by the simultaneous explosion of four huge T.N.T. bombs, roared down the slope, burying the crescent entrance and leaving the guard rooms open to the evening sky. Tons of splintered rock crashed to the floor and flying fragments whizzed past the heads of the two men. They escaped with only a few cuts and bruises.

Like many a costly shell explosion in the trenches the net profit was an overpowering racket that quickly died and the utter destruction of a work that had taken years, or centuries, or ages to perfect. The ruin of the crescent entrance was total; that of the guard rooms, now gaping like a couple of hollow teeth at the arch of the sky, followed as a mere corollary. Markoff lay paralyzed with fear, unable to move a muscle, gibbering like an idiot. Saxby, bound and powerless, held his tongue and wondered in his daze what it was all about.

By a natural enough combination of blunders, the shot achieved at least half a success. Lane's signal to the pilot read "Drop bombs north entrance"—meaning to drop the bombs one at a time on the slope directly over the mouth of the entrance. But, exposed as he was to the fire of the Chinese machine gunners, Lane had no time to signal more explicit orders. He intended that the pilot should drop one bomb as directed and, if lucky, shatter only the outer wall and part of the roof of the cave in which Markoff was hiding. Then, if luck still favored him, and the first bomb merely opened the cave without blowing it to bits, the pilot was to observe his hit. Lane gave him credit for that much foresight before releasing the second bomb. If the pilot saw his late passenger, Saxby, in the cave, he of course would not drop the second bomb. Saxby, according to Lane's lightning-calculated theory was to scramble out of the opened cave and be picked up somewhere by the pilot.

Unfortunately the pilot was a well-trained young man from the Navy, accustomed by tough years of rigid discipline to obeying orders on the jump and to the letter. When Lane signaled for bombs the pilot naturally assumed that he meant *bombs*, not *a* bomb. Hence he dumped the lot all at once. No one was to blame; Lane had no time to explain, the pilot no license to argue an order. The men in the plane asumed that Lane had heard of a safe back door to the caves and was signaling for them to block the front against the Chinese and their murderous machine guns. They hopped to their supposed job with a will and executed it to the President's taste.

It was thorough. The whole Chinese army would need two weeks to clear away the rubbish and force an entrance. Long before the Chinese could enter, the marines would have given their enemies in the cave the slip and be well on their way back to Shanghai. Such was the not unreasonable theory of the pilot. What Lane anticipated in case the first bomb exploded in the guard room, or merely stove in the roof, need not be dwelt upon here. He believed that Saxby would prefer such a fate to being left alive and sensitive to the mercy of Markoff.

As the plane roared back to pursue the Chinese into Teng-shan before resting to await further orders, Saxby came out of his daze. From where he lay he could see Markoff still helpless with fear. In the evening light the interior of the shattered guard room shone with a blinding brilliance after the comparative murk of the torchlight. The black entrance to the tunnel leading to the audience chamber gaped unblocked. If only he could get free of the ropes cutting his very bones he might escape before Markoff recovered control of his muscles.

Like a torpid snake thawing out on a rock in the April sunshine, Markoff began to writhe. His bony skull rolled over horribly and his glassy eyes fixed upon the bayonet. To his crazy vacuum it was now proved conclusively that the five hundred bombing planes in Shen-si were not a capitalistic myth. He had questioned, not to say tortured and robbed, the high ambassador of the United States. Therefore, if the victim escaped, he, the inquisitor, would hang. There was yet time to dispose of the evidence. He need not kill the prisoner in the guard room; he could drag him into one of the black passages and do the job there. Then he could swear to the American officers that he had seen Saxby, crazed by fear, running from the Chinese directly into one of the corridors leading to the subterranean rivers. If only he could summon the strength to his watery muscles he might yet save his neck. But his strength ebbed as he crawled.

His fingers at last touched the handle of the bayonet. The cold contact of the murderous steel was like an electric shock to his flabby flesh. An icy current of determination flowed into his cold soul and the old lust for cruelty filled him with a new strength. He felt that he would not hang.

SUDDENLY, like a snake about to strike, he raised his bony skull and stared with maniac eyes at the wall behind him. He had heard hesitant feet feeling their way down the darkness of the tunnel. Relinquishing his grasp upon the bayonet he involuntarily clutched at his throat. Crazed beyond all memory or reason by his fear he forgot the capsule in his pocket that might save the hangman his trouble. His one instinct was the hunted animal's to seek safety in concealment. A superhuman terror put strength into his muscles and he dragged himself behind a huge fragment of the shattered roof.

Saxby recognized those footsteps, although they halted, lame with pain. A white face appeared in the darkness of the tunnel and ceased to advance. He nodded his head vigorously. Swiftly, and as noiselessly as she could, White Lily slipped into the shattered guard room and looked fearfully about her. Behind his rock Markoff was invisible. Saxby's eyes, fixed upon the bayonet, and his compressed lips were more eloquent than speech. As quietly as possible she picked up the bayonet and cut the cords. Saxby was free, but he could not move. Seeing his plight, she laid the bayonet on the floor, grasped the helpless man under the arms, and began dragging him toward the tunnel.

The noise of Saxby's body being dragged over the loose fragments acted like a douche of cold water on Markoff's cowardice. Peering round the corner of his rock he saw in a glance what was happening. Its implications for him, if successful, were obvious. And it had just struck him for the first time that White Lily could tell the American interpreter all the details of the "questioning" in the guard room. Automatically he was on his feet. His star was still high; this girl's stupid humanity had delivered her into his hand. With her and the American "ambassador" eliminated he could defy any court-martial in China. He tottered toward the bayonet.

Saxby saw his intention. Unable to stand, much less to walk or fight, he could only raise his arm and point to the bayonet. White Lily saw. In a flash she had snatched the steel. By a strange coincidence she flung at Markoff almost the identical words which Hu had addressed to Liapanouff.

"You are neither a man nor a beast. If I kill you it is not a killing."

She sprang after him like a tigress. With a strangled cry Markoff blundered into the tunnel. She followed him in a flash, as silent as a stroke of lightning. The horror of an imminent death by sharp steel, now in-

finitely greater than the fear of being hanged, put wings to Markoff's feet as he fled through the pitch black labyrinth.

Instinct saved him. Hearing his pursuer pass the end of his corridor he stopped dead. She raced on. Presently he heard her stop. She had lost him.

She did not search long. It may have been solicitude for the old American who reminded her of Hu, or it may have been the memory of her grandfather's command that the killing cease, that quelled her fury. It quickly died. Cold and shaken, she hurried back to the guard room.

Saxby was recovering. As the blood began to circulate through his stiffened muscles he put forth all his strength and will-power. He walked, although the effort cost him excruciating torture. When White Lily entered, he glanced involuntarily at her hands. She still grasped the bayonet. It was clean.

"Thank God!" he exclaimed. "I would rather have had my throat cut than let you do that, no matter what he has done. Your kind isn't made every day. I wish I knew Chinese—or even your name."

He took the bayonet from her hand and hobbled after her. This time he made no mistake. They did not venture unarmed into the black maze. If they passed Markoff's hiding place on their way to the audience chamber he gave no sign. Even a stupid girl and a stupider capitalist, he imagined, would learn from one such lesson as he had given them. As for himself his only safety lay in keeping strictly out of sight until the Americans left.

On emerging into the audience chamber they found it deserted by the Chinese. One and all, forgetful for the moment of their bitter feuds, had sought safety in the farthest recesses of the caverns. The terrific concussion of the exploding bombs, and the immediately following thunder of the avalanche of stone, were to them the beginning of the end of all things. The big joss of the Christian converts after all was more than a myth, and he had come, as prophesied, in wrath to judge the world and personally damn all unbelievers. Had not the gray-bearded missionary been too stunned by the concussion himself to grasp his unique opportunity, he might have followed the fleeing Chinese—Moslems, Confucians and miscellaneous infidels—into their distant caverns and converted them en masse. But he hovered like a gray ghost on the flank of the marines oblivious of time and of eternity. Of all that startled knot of men he was the one who kept his serenity. The poor fellow was too badly deranged to realize that his companions considered themselves broken beyond all possibility of patching. As they inspected the blocked exit by the dull flare of their smoky torches they said nothing. Words seemed superfluous.

Lane drew his first lieutenant aside.

"We seem to be bottled up. Unless there is another way out we may as well call it quits. It won't be long before the Chinese get over their scare and boil out on us. I am going to send you with a squad to explore for an escape."

"That Chinese girl probably knows of another exit if there is one," the lieutenant suggested.

"Yes, but where is she?"

"Probably where Saxby is. I shall try to find a way into that cave by the entrance first."

"Small chance. Saxby, Markoff and the girl are probably buried under a ton of rocks. Well, it was my only chance. I'd take it again under the same conditions. Saxby and the girl are probably better off dead. As for Markoff, I can't say."

Saxby spied the marines in the far distance by their moving torches. Just as the lieutenant was about to gather his men for the search, Saxby let out a shout.

"Captain Lane! Where's your interpreter? The Chinese girl is here."

Lane met them half way with the missionary.

"Never mind how we escaped," Saxby began. "That was a brilliant idea of yours—if it was yours—about bombing a way out. Now, I don't want to be officious and seem to be giving orders. But we must get out of this cave at once."

"Check," Lane agreed grimly. "Know a way?"

"Ask the girl here. She's on our side. She just saved my life from that Russian agent. He's alive somewhere behind us."

THROUGH the missionary, Lane put his question to White Lily. She told him at once of the two secret exits, one easily traveled by any man of only ordinary size, the other impossible to any but the slightest and most agile. There was but little danger of a check from any of the Chinese then hiding in the inner caverns, as the entrances to these secret tunnels were well hidden and not likely to be stumbled upon by accident. At Lane's request she guided the marines to the easier way out. He decided that it was time to retreat, and that without delay.

As the men lined up to pass one at a time into the well concealed, small black hole, White Lily held a torch high and estimated each candidate for escape. Presently she began pulling one man after another out of the line. Lane made a gesture of protest. Saxby, standing beside him, caught his arm.

"Let her alone. She knows what she is doing. Look at that last man she jerked out. He weighs two hundred at least. The slim fellows will make it, the others may not. She's not taking any chance of blocking the tunnel at the very beginning."

When the last and fattest marine had been passed in Lane turned to the missionary.

"You're next," he said. "You refused to take your proper turn. Now you get what's left. In with you."

A fanatical gleam flickered over the madman's eyes.

"I denied my master twice. Shall I deny him thrice?"

"You can do as you please about that." Lane seized the man by the collar of his coat and the seat of his trousers. "I may need you to talk for us. After that you are your own boss. Saxby, you're next."

Saxby obeyed without comment. He might have gone earlier as far as bulk was concerned. Lane granted him his request to be one of the last as Saxby feared he might hold up the line. His burns and his general stiffness made each step a torture. There remained only White Lily. The captain motioned for her to precede him. She shook her head.

"Interpreter!" he shouted into the tunnel. "Saxby, send that missionary back."

Saxby himself had to back out in order to accommodate the interpreter.

"Tell her," Lane ordered, "that I shan't force her to come against her will, but that I think she will be safer with us than by herself. For all we know some of the enemy—or of her own people—may have found their way into the narrower tunnel."

The missionary reported that White Lily declined their protection.

"Then tell her to hurry as fast as she can to the other secret exit. I will detail a patrol to look out for her on the mountain as soon as I get out myself."

White Lily's translated reply was illuminating.

"I will stay here with my people and with those who hate them. Hu the Good said there must be no more killing. Unless these people are shown the way out they will starve, and that is slow killing. Without me they would never find this way."

Lane saluted.

"Tell her," he said, "that I respect her wish, and regret that my duty to my men prevents me from staying to help."

"I'll stay," Saxby announced quietly. "My damned feet hurt so that I can only hobble, anyway. "Lend me your revolver. Markoff is still abroad somewhere."

"But," Lane expostulated, "if any of the governor's soldiers catch sight of you they'll murder you. The girl is Chinese. She probably will know how to handle her own race much better than you or I would. If they turn on her she can bolt for the other secret tunnel and escape. I don't see what good you will be. However, I shall let you stay if the girl wants you. This is not a military matter, although technically I could order you to come with us. Put it up to her."

Saxby insisted that the missionary emphasize to White Lily her possible danger from Markoff. With an armed man accompanying her on the search of the distant caverns she would be safe until her own people assembled in sufficient numbers to protect her. Saxby avoided transmitting his private dread that her own people, blaming he. nd Hu for their present plight, might turn against her.

To Saxby's offer White Lily replied with evident distress. She would have none of it. She would be quite safe. There was no danger in what she proposed, either from Markoff or from her own people. In their gratitude at escaping they would protect her, and she would be safe in the caverns, which she knew far better than Markoff did. Her last request to Saxby was personal.

"Go," she said, "with your friends. When I see you I see an image of my grandfather, and I would not have him here."

She was inexorable. With a sigh Saxby turned to precede Lane into the tunnel. White Lily had earned her right to do as she thought best; it was not for him or any other man to disregard her wishes.

"Ask her what her name is," Saxby directed.

The missionary gave the Chinese.

"What does it mean in English—if anything?" Saxby asked. "I might forget the Chinese."

"White Lily."

Assured that the friend who reminded her of Hu was safely on his way—provided he and the others in front of him could squeeze through the narrow places—White Lily kindled a fresh torch from the old and left the spot, as she thought, forever. The little that must be done before she might seek and find her heart's desire would not take long. Holding the torch like a beacon high above her head she walked rapidly from cave to vaster cave in search of her people. Only the quick patter of her footfalls broke the black silence and died in the vastness without an echo. Indifferent to everything but the peace that before long would be hers, she felt no pain from her lacerated feet, and even the dull ache of her heart was swallowed up in a timeless void where there is neither joy nor sorrow.

She had never believed in the paradise of her grandfather; it was an old man's dream, a fable of his second childhood, to be tolerated but not mocked. The object of her secret contemplation was more serene than any paradise of the prophet's, and soon it would be hers as it was his even now. That he had grasped the only good thing in the very act of reaching for what he imagined was a better, was the kindest fate she could have wished him. The thing he thought he desired could never have satisfied him. Although he would never know it, he was happier than he had ever dreamed he should be. He had attained the supreme good blindly; she knew what she desired, and she would seek it with understanding.

Reaching the deepest cavern she stopped and sang her message into the darkness.

THE crescent entrance is choked with stones. You cannot pass out that way for many weeks. Send me ten of the men you trust and I will show them a secret way out of these caves. They shall be your guides. All, the people of Hu the Good and the soldiers of the governor of Kansu, must pass out in peace. There must be no more killing. This is the command of Hu the Good to his people. He took your guilt upon himself and paid with his life. Send me ten men or you starve. You see my torch, and I feel you in the dark places about this cave."

For perhaps a minute no sound answered. Then a shrill voice screamed through the darkness.

"Is this another trap? You and your grandfather betrayed us to the governor. Why should we believe you?"

"To save your own lives."

"We are safer here, and here we stay."

"As you will. I care no longer what you do, for I heard a voice on the mountain prophesying the end of all your strife. I brought you the word of Hu the Good because I promised him that I would. Does it matter if you are as deaf as he is? Your hunger will not last long. Then you will forget and be forgotten. Does any man come with me?"

"No!"

The angry shout from a thousand throats hoarse with hatred reverberated through the vast cavern and died without an echo. They disowned her, and would have torn her to pieces had not their fear that she was a decoy sent by the governor held them in leash.

She retraced her steps to the audience chamber. There she kindled a fresh torch, picked up a bundle of the larger ones, and hurried into the void of a vaster cave on the further side of the hall. Having promised Hu that she would avert bloodshed if possible, she kept her word to him, although she believed that he would never know she had. Yet, although he had ceased to exist, she felt his presence in those dark caves. Not till she had carried his message of mercy to the deepest of them would the memory of him be appeased.

In some of the caves she heard the stealthy stirring of men all about her beyond the narrow circle of the torchlight, but none answered her summons. Either they disbelieved her like the men in the first cave, or they were too dull-witted to foresee their inevitable end. The plentiful stores of food in the dry caverns were more eloquent than the thin whisper of a distant hunger. If what she said was true they could dig a way out before they starved. The immediate risk of a second betrayal paralyzed their imaginations and they reasoned with their bellies. In two of the smaller caves the response was similar to that in the first, but angrier.

At length, shortly after midnight, her fruitless labor came to an end. She was free now to do what she longed to do. In her joy at the serene knowledge of freedom from all obligations to the dead or the living she quickened her weary steps back to the audience chamber. Physical exhaustion all but overcame her, but her will conquered the desire to sink down on the smooth rock and sleep.

As she entered the audience chamber she broke into a run. The far eastern wall and the long corridor where ten thousand had trodden the way she was to take echoed to her coming. She heard the patter of her own feet multiplied in her ears, and it was music. Then, as from a world already forgotten in the headlong plunge to oblivion, she heard other feet racing to intercept her.

A tense, lustful face, red in the glow of the smoking torch, peered into her own. Instinctively she swung the torch at that mask of hatred and desire which

froze the blood in her veins. She missed. The torch shot from her hand and the glowing coal of its tip bounded through the darkness, to expire in a constellation of crimson sparks. She felt her persecutor's claw of a hand upon her shoulder and his cold breath like a blast of death upon her cheek. Frenzied with loathing she wrenched herself free. He was between her and her heart's desire; to escape him she could only flee into the universal darkness.

But half conscious of where she was going she raced toward what she guessed was the cavern leading to the narrower secret exit. The very unconsciousness of her actions aided her. Where deliberate thought would have confused her, the lifelong habits of her unfeeling muscles took control automatically and urged her body unerringly toward its nearest safety.

Markoff did not make the mistake of immediate pursuit. He had watched and waited too long and too patiently for his opportunity to risk it in a confusion of blundering chases in the dark. Until certain of the way she was taking he could listen as coldly and as motionlessly as a dead snake. The inevitable change in the timbre of her footfalls would tell him when she entered a corridor, and the focussed sound of her flight would guide him unerringly to his prey. Every nerve of his lean body listened, as the sounds dwindled steadily in the distance, straining to detect the slight change in quality as she passed under an invisible archway. Presently he caught the change. Turning his head slowly from side to side he fixed the direction of the sound. His muscles stiffened and he leaped into pursuit.

He had watched her every movement in the audience chamber, from the moment she led the marines out of it till the instant she reappeared after her last fruitless mission to the hiding places of the Moslems. During her long absences he speculated on her mission, imagining that she was gathering her people for an assault upon the shattered exit, or to lead them to freedom by the tunnel she had shown the Americans. To attack her while still uncertain of her friends' whereabouts would be foolhardy. Her cries might well be his death warrant. Only when she was almost to the eastern wall did Markoff feel safe in accosting her. Only the forbidden caves lay that way; she could not possibly summon help from them. The ambushes of her people all lay far underground and a mile or more to her rear. Her attempt to kill him with the bayonet had inflamed his passion to the point of insanity. Love and cruelty are indistinguishable to men of Markoff's kind, and passionate hatred is their equivalent for ungovernable desire. He would possess her now in his own way.

Creeping after her into a low corridor he heard her groping along its wall. Evidently she was feeling for some entrance she knew well. The sounds ceased. Stealing forward a step at a time Markoff felt every foot of the cold hall till he touched a void. Like a rattlesnake he squeezed silently into the narrow tunnel after her.

Before long she knew that she was followed. While she still had strength to crawl she would not fall into his hands. The roof of the cramping tunnel sloped rapidly down toward the floor. Progress was possible only on hands and knees. She heard him gaining. He was filled with an insane endurance; she, all but exhausted.

The limestone slope became as slippery as iced glass where the tunnel passed under the bed of a subterranean stream and the water dripped incessantly from the roof. Markoff slipped in the slime, cursed, and lost twenty yards. Mad with rage at his mishap he wallowed in the slimy muck till his clothing and the green notebook in his coat pocket were soaked in the ice-cold limewater. Bracing his elbows against the walls of the tunnel he dragged himself up an inch at a time like a wounded snake trying to crawl out of a gopher hole.

White Lily was now fifty yards ahead. If her strength lasted another hour she would beat him to the exit. Then she might find her friends—they had offered to wait and look for her before she refused to escape as she was now escaping. Surely they would be within hail on the mountainside, and they could destroy or hold her tormentor till she escaped forever. Her senses clouded and she struggled through the last terrible hour in an agonized dream, too exhausted to know whether Markoff still followed or whether he had suffocated in the slime.

Her dream was more vivid than any reality. With an awful immediacy she knew that it was not a dream, but the shadow of a living horror that brooded on her mind. Powerless to shake off her nameless fear, even when the tunnel permitted her to straighten up and run, she resigned herself to its clutch and wondered if she must be conscious of it forever. Did Hu suffer now as she was suffering? Were the converts right? Was this the eternity they had prophesied for her and her grandfather? She stumbled up the last steep slope, crouched to pass under the shelving roof, and dragged herself up to a moonlit desolution of shattered quartz. Instantly her mind cleared in the untainted air and she knew that the damnation prophesied by the converts was a lie. Her rest would be deep and dreamless.

Until her friends found her she must stay in the vicinity of that black hole in the quartz to see what issued. She would not venture to return to the audience chamber by the broader secret way until she knew beyond all doubt that the narrower had voided its snake. For all she knew Markoff might have crawled back to the caves. If at dawn he had failed to emerge she would hasten to the other exit and ask two of her friends to see her safely back into the audience chamber.

She climbed a jagged pinnacle of quartz, found a ledge where she might rest, and scanned the moonlit mountainside for traces of her friends. Half a mile away a more massive outcrop of quartz had burst through the limestone. The tunnel she had shown Lane ended there, beneath a great rock in a small cave no larger than a panther's lair. This exit was well concealed beneath a loose jumble of huge blocks on the floor of a natural amphitheatre of quartz and limestone. It was in fact a replica on a grander scale of her own surroundings.

Half way down the moonlit slope of the farther outcrop she made out dark shadows that seemed to move. Were these her friends? Two black figures rose on the crest of the amphitheatre and dwindled down to the slope to join the others. From the build of the shorter she guessed it to be the old American who reminded her of Hu; the other might be the commander. They were safe. When Markoff emerged she could run across the intervening mountainside and soon be on her way in safety.

WHILE White Lily watched for him, Markoff labored ever more slowly up the last hundred yards toward the moonlight and the clean night air. He, too, was troubled by fitful dreams of an all but supernatural reality. In his career as a seeker of pleasure he had experimented with certain of the rarer oriental drugs, only to abandon them all after one or two trials. They intensified his morbid fear to death to such a pitch that he gladly let them alone. The dreams—if they were dreams—that tortured him now were a million times worse than the worst any drug had ever

The clothes of the dead man began to glisten in the moonlight as if stiff and brittle with hoar frost

induced. He began to mutter in Russian that he must be very ill; that White Lily had poisoned the tunnel with some Chinese drug of unnatural potency, and that he would never again see the sunrise. He experienced no pain—otherwise he would have shrieked. Nevertheless he felt horribly diseased to the very marrow of his bones. The girl must have poisoned the tunnel. He could smell the stuff now. Until this moment he had not noticed the faint odor of decay that crawled with him like an aura. He stopped, panting. The smell had suddenly become a suffocating stench that made his reeling brain spin. Without the slightest premonitory twinge an infinite pain gripped every nerve of his being, and he fell instantly from the human state to a writhing thing that was neither human nor beast.

The inhuman shrieks that suddenly burst in appalling volume from the black hole in the rocks tattered the silence of the night to shreds. Half a mile away the sentries heard them and went as cold as ice. Even in battle they had never heard such sounds of agony. White Lily tumbled down the steep side of her lookout and, with her hands to her ears, fled across the slope to the Americans. No matter what the fiend had done he should not suffer like that. She must get one of the soldiers to shoot him.

Half way to her destination she met Lane and Saxby running to meet her. She could only point behind her. They raced on, hardly less fearful than she, while she fled with all her strength to outdistance those terrible sounds.

Stumbling down into the smaller ampitheatre they saw what looked like a man writhing its way out of the black hole. Freeing itself the welling thing flopped and bounded over the rocks with horrible contortions that bent its back double.

"Shoot him!" Saxby shouted.

Unnerved by those awful sounds of torment Lane fired six times and missed. Expert marksmanship and a cool head might have put an end to the agony of that thing bounding over the jagged quartz like a fish jerked from the water. Lane had neither. He tried to reload but dropped the shells. Suddenly the thing collapsed like a jellyfish. Its sounds of pain increased beyond all endurance. Before he could seize a stone, Saxby saw Markoff's right hand, limp as the flipper of a dead seal, fumbling at a vest pock. Evidently the man could still think. He still had memory, and he remembered the capsule in his pocket. The fumbling fingers crumpled and bent back double; the wrist curled up and the limp arm flowed down on the rocks, as an invisible decay progressed swiftly through the bone from finger tips to shoulder socket. The bony skull suddenly settled like a collapsing balloon; the sounds of agony ceased instantly; the whole sprawling body lost its rigidity and became a sagging bag of pulp.

Unable to move, the two men stood staring down at what had been a human being. Like a recurrent dream the next act of a tragedy older than the human race began slowly before their eyes. As if he were following a once familiar change that he had witnessed a thousand times only to forget, Saxby anticipated each event before it happened. The sequence was stark reality itself; although each individual act contradicted the accepted harmony of nature. These things, too, were natural, but in an order of nature more ancient by æons than the beginnings of evolution. Lane, knowing less than Saxby of what lay before them, felt more. It was his first experience with the older order. The foundering of the *Sheridan* was too abrupt to reveal its true significance to men battling for their lives in black waters. He felt more than Saxby now, because the changing substance of the dead man's body communicated directly with his own flesh and bone without the intermediary sophistication of thought.

The clothes of the dead man began to glisten in the moonlight as if stiff and brittle with hoar frost. Yet the night was sultry. A sleeve, rotted at the shoulder of the coat, crumbled and fell away. The frostiness of the rest thickened to a glittering fur of thousands of needlelike crystals. The rotten fabric collapsed under the increasing weight as the crystals grew, and fell with a tiny, fairy chime of tinkling glass to the quartz, exposing the shapeless arms and legs. A coat pocket

collapsed. Yang's notebook, glittering with crystals, fell open, face down upon the quartz. On the bared flesh of the legs and arms, as delicately as an expert artist, an invisible worker rapidly etched the outlines of the skeleton as the completely dissolved substance of the bones sweated through the flesh. Simultaneously the flattened head became a bejewelled hemisphere of densely packed crystals that grew and multiplied visibly. Within twenty seconds the entire body was crusted over with a bristling pelt of glittering needles, whose steady growth filled the moonlit amphitheatre with a creeping, metallic rustle.

The rate of growth began doubling twice in every second. The air grew deathly cold and a slow breeze stirred among the rocks. Spears of splintering glass sprang from the quartz surrounding the body; the whole amphitheatre seemed to burst into crystalline life multiplying upon itself in explosive growth, and the rocks groaned and split asunder in travail to bring forth a new life.

"Out of it!" Saxby shouted, dragging the captain with him.

They fled for their lives back to the camp. Words were superfluous, even if they had had sufficient breath to utter them. Even Lane, who lacked Saxby's fuller knowledge, realized that Markoff, in discharging his debt to the world, had succeeded in passing his last bad check. Dead, he was infinitely more dangerous than he had ever been while living. In his crawl through the secret tunnel he had infected an entire mountain range with hellish life.

On reaching camp they were hailed by the missionary exulting like a madman.

"The Chinese girl has gone back to the accursed caves by the way we came out. She told me to tell you," he shouted at Saxby, "that she has gone to join her grandfather. 'Vengeance is mine, saith—'"

Saxby knocked him down.

CHAPTER XI

Buried

FOR the two hours that remained till dawn the men were ordered to sleep—if they could.

"You may march far," Saxby grimly informed the sergeant, "when you do start. So make the best of what is left of this hellish night. Better obey the captain's orders. Mere noises will mean nothing unless I yell."

Saxby and Lane kept watch with the sentries, never once taking their eyes off the wall of the farther amphitheatre. They had been watching about an hour when they saw a gleaming pinnacle suddenly rear its glittering spire above the wall in the moonlight, only to totter almost instantly and disappear. Three seconds later they heard the crash of a million tons of shattering glass. The men leapt to their feet and snatched their rifles. They had not slept. That appalling sound of destruction seemed to last for centuries. Instead of diminishing it increased with an incredible crescendo till it seemed that the whole mountainside must be an avalanche of brittle crystals smashing to bits. Then, as abruptly as a thunderclap, the racket ceased absolutely.

"Well?" said the captain. "Had we better be going?"

Saxby shook his head.

"Better rest. Tell the men it's over for tonight. That's the end of the stuff we saw growing."

"How do you know?" Lane felt strangely cold.

"I started to tell you in the cave when that crazy missionary over there butted in with his prophecy of a jehad that had already taken place. How many thousand years ago was it? Do you remember? I don't. It never happened or, if it did, it was utterly unimportant compared with what may happen next. That was merely a squabble among a few thousand Chinamen about a triviality. If it ever mattered—which I doubt—I have a feeling that it will never matter again. We may be about to fight an enemy the human race has never faced. But I trust not. If that terrific conflict does materialize—as it may—we shall find it wise to forget our petty brawls for a while. For if it breaks out it will be one against all and all against one. I have seen a shadow—no more—of what may be almost upon us. That is what I started to tell you about. You wouldn't have believed me, in spite of your wife's unsigned note. And I scarcely expect you to believe me now when I tell you why she did not sign that message. She was afraid of incriminating you through me. You alone were responsible, you know, for the wreck of the *Sheridan*."

Lane stared at him.

"I don't wonder that your mind is temporarily unbalanced. Am I seeing things, too? Did I see Markoff die? Or was it just my imagination running wild after all that hell in the caves?"

"You saw that pinnacle fall a few moments ago," Saxby reminded him quietly. "So did I. And the men heard it as well as we. If you don't believe me, see what a devil of a time the noncoms are having to make the men lie down again."

"What did my wife ask you to tell me?" Lane demanded in a low tone. "Better not speak too loud. That sentry is on the jump as it is."

"Just this," Saxby began. "First, if you are questioned, to deny that you ever had anything to do with dyeing your boy's Easter eggs. That seems to have started everything—exactly how, I don't yet see. As a matter of fact I don't think you will ever be suspected. Your wife, Tom, and I are the only ones who know. Isabel has bribed the boy to forget. She says he has sense and can be trusted. Now, let me give you a bald outline, without any theorizing, of precisely what has happened since you mixed that green dye. After seeing Markoff die and hearing one crash yourself you should be able to believe the rest."

Saxby then briefly detailed the unexplained circumstances surrounding Tom's fight, the "vision" of Dan and Jake, Yang's strange death and Isabel's experience in the desert.

"Yang," he concluded, "was mercifully stupefied by gin when the disease got him. Markoff was sober, in full possession of his senses. From his end we may guess that the disease—if it is such—is extremely painful in at least one of its forms. From my analysis of what has happened so far, I deduce as a working hypothesis the existence of two distinct types, and possibly a third. Again, as a tentative guess only, I find it suggestive to imagine that those crystals we saw growing, also the others in the desert and in Los Angeles, have some form of life. This may not be a very good hypothesis. Perhaps we had better say they have proto-life. This proto-life is not the common property that all crystals have of growing in their mother liquid. It is more closely akin to animal or plant life—to life in the ordinary sense. I do not believe these growths have intelligence as we commonly understand the term. A psychologist of the extreme behaviourist school would, of course, say that they have as good a claim to "intelligence" as we have. Their actions are their minds, and their minds are nothing more than their actions. However, we can defer metaphysics till the fight is over—if we are still alive to argue.

"All I wanted to point out is this. These crystalline

masses that grow at such a prodigious rate seem to be of at least two distinct species. One feeds, if I may put it so, on silicon compounds as well as on lime compounds; the other seems to require cellulose. The mineral feeders find their nourishment in sand, quartz lime—in fact in practically any kind of rock containing silica or calcium; the cellulose-feeders in such stuff as wood, clothes or fabrics containing cotton, and so on. For anything I know to the contrary either kind may be able to live, for a short time at least, on the other's proper food. Now, I take it as practically certain that there were considerable quantities of lime in some form or another in the hold of the *Sheridan?*"

"We carried several tons of chloride of lime for sanitary purposes in camp."

"Check! Calcium chloride—that's what you had. The chlorine in the compound doesn't seem to count. The calcium does. What were those rocks in the outcrop where the burros were killed? Limestone—calcium carbonate. Again you have it. What about the bones of the burros? And what about the shell of Tom's green egg? Lime again. And so in Markoff's case. The crystal brutes that overgrew the burros were silicon feeders. The sheer weight of the crystal masses, nothing more nor less than huge cutting machines of brittle glass, sliced the carcasses to ribbons.

"On Tom's Easter egg there may have been a growth of both silicon- and lime-feeders and cellulose-feeders, although the cellulose kind undoubtedly predominated—witness the total disappearance of the cotton mat. There was, however, a characteristic odor of decay in this instance, as in that of the desert. I infer, therefore, that mineral feeders were also present. Probably they fed upon the dust that is under even the most sanitary bed. What interests me is this. There must have been a third kind present, a combined mineral-cellulose feeder, which crashed when it tried to walk. Some of the same variety must obviously have come to grief over there just a few moments ago; Markoff's clothes provided the cellulose, the rose quartz, the silicon. In the case of the egg I infer that the silicon-cellulose feeders have a more durable 'heart' than the pure silicon feeders. Otherwise your cat would not have been knocked out when he first sniffed the egg. As the full sunlight worked on this thin layer of living crystals they disintegrated—just as the mineral-feeders do. The essential characteristics of all are the same; they are truly different kinds of one and the same life.

"What part the calcium compounds play in the life of these crystal brutes I don't yet see clearly. I suspect they are the necessary 'enzyme' that starts the terrific growth—the yeast, as it were. In each case so far there has been calcium present when the crystals began multiplying like a madman's nightmare. Even in the case of Yang we have it. Those four hard-boiled eggs murdered him. Their shells were mostly limestone. It was a silicon-feeder that got him. All the glass bottles in the laboratory were gone—vanished completely."

"I still don't see how you fit Tom's egg into your theory," Lane objected. "If you can't explain that, you will have to change everything."

"The thing in your boy's bedroom was mainly a cellulose-feeder," Saxby reiterated with some heat. "The cotton mat by the side of his bed had disappeared."

"But," Lane interrupted, "you say the green egg was found under the cot where Isabel put it."

"It was. The mat, when she hid the egg, was partly under the bed. She is not sure, but she thinks she remembers putting the egg on the corner of the mat under the bed."

"If your theory that lime starts the growth is correct, that egg should have had a shell left when the doctor found it."

"Not necessarily. I'll come to that in a minute. Only a very thin layer of the shell need have 'evaporated' to start the growth. The city chemist of course, not being told to look for anything of the sort, observed no suspicious thinness of the shell. He was concerned only with analysing the green dye. So with Yang's four crushed eggs. I had no time to examine carefully what was left of the shells."

"I think you'll find, Lane remarked, "a fourth kind of feeder among your infernal crystals. Call it a pure calcium eater."

"Not till I find it. I see certain evidence for another explanation. The calcium, I'm willing to bet, is responsible for the sex of these brutes. Oh, I know I'm crazy—have been all my life. That's why I have done some things better men couldn't do. These crystals, I suspect, have three kinds of sex—male, female and bisexual. The last correspond to certain kinds of plants or flowers. The other two are more like most animals. All this, of course, is only a crude analogy, for the crystal monsters are neither plant nor animal. They're far more ancient than either."

"What I want to know is how are we to stop them breaking out again?"

"Possibly we have seen the end of the whole story. If a certain theory of mine is correct, we have."

"Then why did you insist that we may be in for the greatest fight in history?"

"Because my optimistic theory may be wrong. Any man with a scientific training knows that even the most perfect and most logical theory is likely to be smashed at any moment by a single apparently insignificant fact. I can put mine to the test now. I believe these crystal brutes can breed and grow only in light of a certain quality. Direct sunlight is fatal to them. Total absence of light prevents them getting a start toward life. Moonlight, direct or diffused, seems to be just right. The actinic rays of the sunlight are either not present or are so diluted as to be negligible in the light reflected from the moon. You can't take much of a photograph by moonlight. The crystal brutes must have their light weak or they don't breed. If it is too diluted, they perish. In total darkness they don't even seem to begin to live. They seem to be fastidious about their light as animals and bacteria are about their temperature and humidity. Unless both lie in very narrow ranges your animal dies. Now, in all instances so far, the crystal brutes have come to birth, bred and lived only in moonlight.

"Both the quality and quantity of light present seem to determine the period of gestation of these crystal brutes or, if you prefer, the term of incubation. *When* your wife infected the rock outcrop in the desert is not known. I suspect it was *not* when she prepared supper, but early the following morning, while cleaning up to leave camp. The refuse may have been the plague spot, although Mrs. Lane thinks the rock was infected by her clothes. If so, the infection did not reach the silicon in the crack which Tom observed until some time the following day. The full sunlight held the life of the crystals in abeyance all that day; the moonlight started them breeding, and the 'rats' got the full benefit.

"Again, as to Tom's egg. Before leaving Shanghai I verified that the moon was shining into your boy's room the night all this started."

"Did you ever see Tom's cot?" Lane asked quietly.

"No. Why do you ask?"

"Because it has a heavy Mexican horsehair valence all around it clear to the floor."

"So much the better for my theory. The brute in

his room cannot have been nearly so large as any of the others. It seems to have been a pretty feeble specimen; it tottered and crashed of its own weight. It was like a rickety child deprived of direct sunlight. The amount of light that could diffuse through the slit between the valance and the floor by reflection from the walls would be practically negligible. The egg was almost, but not quite, in total darkness. Its infernal offspring, generated from the cellulose of the cotton mat, was therefore a puny little devil with no stamina—luckily for Tom."

"All right," said Lane. "I won't argue with a scientist. What about the *Sheridan?*"

"You mean how did the moonlight diffuse into the hold and start things going? That's simple. Through the portholes, of course. The diffused moonlight started the spots of dye on your shirt. Your wife told me you changed it at the last moment before starting. It was in your dunnage bag, of course?"

"Suppose it was. What then?"

"It must have been in the hold, probably, although you would not know, not far from your supply of chloride of lime. Then we have simply a repetition of the essential conditions of Tom's bedroom. With hundreds of dunnage bags, themselves cotton and stuffed with clothes also mostly cotton, the cellulose-feeders had an ideal propagating place."

"And they grew at such a rate that they quickly burst the ship?"

"Precisely. A pan of dough swells to several times its initial size when the yeast gets to working well. These tons of cotton bags and clothes grew so fast into crystal masses that the effect was practically a silent explosion. From my observation of the thing in the desert, I conclude that the crystals are strong, extremely brittle, and *hollow*. Certainly some of them were filled with some substance, probably like the neon and mercury gases in these new electric signs, that glows from blue to red. The crystals at first are probably almost solid throughout. As they grow they hollow progressively and fill with gas. The gas, I take it, is the equivalent, in their kind of life, of the blood of animals or the chlorophyll of most plants. Being a mere shell when full grown, the bulk of the crystal would be thousands of times that of the compact food from which it grew. An enormous pressure would be exerted by a rapidly growing mass of such crystals before they all suddenly collapsed."

"Yes, and then what? Why didn't Isabel find any trace of the thing after it smashed? And why didn't you or those prospectors find any broken crystals in the desert?"

"Easy. One of these living crystals dies instantly if it is broken. Scratch certain kinds of glass and they fly to pieces."

"You always find the pieces."

"Of course. But suppose that condition was intensified a millionfold. There would be nothing left but a very fine dust. If colorless, as it probably is from these crystals, it would be difficult to detect. That explains, possibly, why Isabel noticed no dust on the floor of Tom's bedroom."

"It may."

"You are no more skeptical than I am. It is more probable that when a living crystal 'dies' it ceases to be a solid and sublimates instantaneously to a gas. That accounts for the terrible smell that is always present. The odor is characteristic, although unlike any with which I am familiar in chemistry. Yet, I am willing to believe almost anything about the smell of a silicon compound, and there are some pretty tough ones that can be generated from cellulose as a base. Most dabblers think the sulphur compounds are the worst. An expert in other elements knows better—or worse, according to the way you feel about such things."

"All right," Lane remarked. "Let us go back to the *Sheridan* for a moment? How did the green dye on my soiled shirt ever come in contact with the chloride of lime? You say calcium compounds are necessary to start the crystals living."

"Contact is unnecessary. See what happened to the glass bottles in Yang's laboratories. It is sufficient that the subtle gas, or emanation if you like, from the green dye shall diffuse and attack the lime—which may be a hundred feet away. The effect would be very slight, judged by any scale the layman might apply, yet chemists and physicists work habitually with traces of gases as dilute as those required by our theory, and even with quantities much smaller. It is not the size of things that is important; it is their qualities. This is a commonplace of everyday life. Seventy years ago the 'authorities' would have locked you up in an asylum if you had told them that you could wipe out a whole population with a pinprick. Yet, that is all that is necessary today, and you experts may be using just that sort of a weapon in your next human war. Your apparently clean pin may be a thriving metropolis of carefully selected disease germs. Infect one man under the right conditions and your grand offensive is launched toward a devastating victory. Only," he added with a wry smile, "nature may stop us before we can start that sort of thing."

"There is one objection to your theory," Lane remarked, ignoring the compliment to the foresight of certain leaders in his own profession. "This emanation from the green dye never got a chance at our chloride of lime. The lime was all packed in airtight cans."

"Airtight? A lot you know about cans. I'll bet the lids on half of them were as loose as ashes. Probably one or two had even slipped their covers completely in the manhandling of loading. I've watched stevedores at work. After spilling half a can over the dunnage bags the men slapped on the cover and let it go."

"Well, I can neither prove nor disprove what you say. I'm willing to accept the loose lids on those cans."

"So am I. They must have been loose. Otherwise the *Sheridan* would be afloat now."

"And you say this green dye is probably some sort of a freak that may not turn up again in chemistry for millions of years?"

"I hope so. It is probably a highly complex compound that is formed only under an extremely rare combination of circumstances—correct heat, proper concentration, and perhaps fifty more.

"When you dyed Tom's Easter eggs, you hit the right connections by accident. Yang was an expert. He was one of the most skilful technicians in the world. When he saw queer chemical reactions happening before his very eyes, he babied and encouraged them in every way to be themselves. They gave the hints; he merely followed to the best of his ability. His notebook shows that." Saxby stopped abruptly. "By the way, what has happened to that infernal notebook? Is it still in the caves?"

"I saw it fall out of Markoff's pocket when his coat rotted. Didn't you?"

"No. I couldn't take my eyes off his head. Are you sure you saw it?"

"Positive."

"Then we must go back and get it at once." He glanced at his gloved hands. "Thank Heaven Markoff let my hands alone. You mustn't touch it. The gloves may not be any real protection. Still, we know what happens when flesh that has been in contact with limestone or limewater touches the green dye. The emana-

tion penetrates the flesh and rots the lime of the bones to liquid. If that isn't exactly what happens the fact is equally unpleasant."

"But what can you do with the infernal thing?" Lane demanded.

"I'll fly back to Shanghai with it. Then I'll take another plane and fly a thousand miles out to sea and drop it. You needn't come now. I'll get it and be back by sunrise."

"Just a word before you go. Your theory seems to be off so far as the *Sheridan* is concerned. There was no smell of decay as she sank."

"Of course not. She went down before all the crystals had time to sublimate. You smelled nothing because you were too excited trying to swim to the raft. Such gas as had already been given off in the hold of the ship dissolved in the water. Probably the gas is more soluble in water than ammonia. Anyhow, the facts indicate that it is."

"Very well. There is just one more point. You said those living crystals couldn't breed in total darkness or in full sunlight. And you supposed there was enough moonlight diffused through the portholes to start the breeding of the emanation on the lime and the cotton clothes. Again I say all right. Now for the awkward fact that demolishes your theory. The dunnage—all those clothes—and all of the chloride of lime were stored in the lower hold, far below the water line. There was not a single porthole in that hold. The very faint light required by your theory was in the sea water no doubt, even at the depth of the lower hold. But there was no possible chink or hole by which it could have filtered through to the dunnage."

"What about the hatchways between the upper and lower holds?" Saxby snapped.

"All closed tight as drums with hundreds of tons of military supplies holding them down. I guess your theory is sunk like the *Sheridan*."

"Not at all! Modified, that's all, and most beautifully. There must be a third species of crystal monsters, a cellulose-feeder, that breeds in the dark. Why, my theory is better than ever! I don't have to tinker with diffused moonlight to account for what happened under Tom's cot. Don't you see? There may be only two essential species after all—a darkness-breeding cellulose-feeder and a moonlight-loving silicon-eater. But if there is a third—"

"Wrang!"

IT was not a sunrise gun from Teng-shan that cut short Saxby's rather unscientific defense of his optimistic theory. The ear splitting shot that seemed to pierce the very brain was the characteristic note emitted by the sudden fracture of a vast body of rock under tension. Those who have never enjoyed the experience of such a sound may get a faint echo of it by sticking their heads into a bathtub of water while a friend bangs two sledge hammers together, under water, within an inch of the ear. That shot was heard in Teng-shan and in all the villages within a radius of fifty miles of it. The governor, recovering slowly in his palase, had a bad relapse. The wretches imprisoned by thousands in the caves heard in it the voice of their doom. The pilot of the bombing plane stiffened his muscles and gave his bird the gas. The marines had difficulty in making their legs behave. The earth jarred slightly, but there was no earthquake. The most important consequence of that report was the conspicuous hole which it shot through the middle of Saxby's theory.

"That happened half a mile underground," he remarked when Lane could hear. "Markoff infected his tunnel thoroughly when he squeezed through it with that infernal notebook in his pocket. And it must have been pitch dark in there. I guess you're right. One kind at least of the living crystals does breed in absolute darkness. I suspected that this might prove to be so. This makes the whole situation worse than I expected. The caves will be polluted for years and Kansu will become the plague spot of the world. What I hoped would not happen has happened. Nature has declared war on the human race. We had better get out of here and warn the people of Teng-shan as fast as we can."

"What about Yang's notebook?"

"It may as well stay where it is. I probably should not be able to get it before the big smash comes anyway. Keep your head and make the open plain as hard as the men can go. Don't wait for me. I'll follow at my own pace."

Lane shouted an order. The men fell in, and the column thundered by on its way to the plain. The missionary, Lane, and Saxby stood watching them pass. The sun rose, and with it the morning breeze. Almost suffocating them, a foul odor of decay drifted over from the amphitheatre. Their brains reeled.

"Take the interpreter and hurry to the governor," Saxby advised Lane. "No. Don't hang back for me. My feet are all right if I should have to run. I'm taking a professional interest in this," he called after the retreating figures. "I've been a collector all my life. See you later in Teng-shan if it's still there."

He followed as fast as he could, deliberately ignoring the pain from his burns. "Well," he remarked to himself, "if it must come, it will be worth seeing. I wouldn't sell my ticket to the show for a million dollars, even if I shall never see another sunrise for staying. Nature is greater than mere life; nature is infinite, life finite."

When, an hour or so later, Saxby hobbled down the last ten yards of the slope, he felt sorely disappointed. Nothing whatever had happened. Had he sent the marines on a fool's errand? They were to warn the governor and assist in evacuating Teng-shan of its inhabitants. For what? Perhaps nothing. Although humanely concerned about the possible fate of the Chinese, Saxby could not repress a sigh of regret that the finest specimen in his collection had failed to materialize. It remained only a hypothesis. He felt like an entomologist awakening from a dream of grabbing purple butterflies a yard square only to find a slapped mosquito in his hand. He trudged on to the village, resolved never again to theorize so long as he lived. Metaphysics is better left to the next world. It is worse than gin.

While the marines hastened to Teng-shan and Saxby trudged after them, the pilot of the bombing plane soared above the mountains searching for his fellow Americans. Never having heard the crack of snapping rock before, he interpreted the shot that altered Saxby's theory as the explosion of a huge military mine. Somehow, he thought, the marines had captured the entire store of explosives of the Chinese and were blasting their way out of the caves. Since bombing the guard room and blocking the caves, he and the mechanician had spent some pretty anxious hours. Had they done what Lane really wanted? It seemed so rash that they doubted. Worse, the Chinese gunners, headed by the governor in person, had paid a brief visit of inspection to the plane. The plane's forward and aft machine guns were observed by the visitors. They kept a respectful distance. Nevertheless their superstitious fear of the monster was rapidly evaporating. The pilot could not help feeling that, when they retired, they left merely to devise some practicable method of attack. He did not feel justified in leaving the spot until the captain sent definite word. The marines might still have need of his services. When the supposed mine

explosion shattered the dawn, he shot over the mountains looking for the crater. Hoping to find it soon he planned to circle it, making all the racket he could, to scare off the Chinese till the marines escaped.

Forty minutes of criss-cross flying over the range revealed nothing remarkable. The aviators became puzzled. Surely there should have been a column of dust after the explosion? They began to fear that the explosion was of Chinese origin, deep in the caves, and that the marines were its victims.

A SUDDEN shout from the mechanician, acting as observer at the moment, caused the pilot to look down. On the floor of a natural amphitheatre directly beneath the place he saw unmistakable evidence of bloodshed. The outline of a solitary human body encrimsoned the rock. No other evidence of a conflict was visible. After a short consultation they decided to land and investigate. A mile and a half from the amphitheatre they spied a safe landing place on the slope and came down.

Revolvers in hand, although they expected no ambush, they hurried up the mountainside. Not a soul molested them. As they drew near the wall of the amphitheatre they noticed a faint odor of decay.

"There's been fighting here," the pilot remarked. "Watch your step. Take that way up—to the left, and keep your eyes peeled."

"That's no battlefield smell," the mechanician retorted, picking his way over the huge blocks of quartz. "It's different and a sight worse. It smells like rotten metal. Don't you get it?"

"Get it? I'll say I do." They were passing through the shadow of a tall pinnacle at the moment. "Makes you feel groggy, doesn't it? Do you suppose the Chinese are using a new gas?"

"Smells like it," the other agreed as they emerged into brilliant sunshine. "That's queer. It's completely gone now."

"Must be a heavy gas that evaporates in the sun," the pilot hazarded. "We had better keep out of the shade after this. I'll bet the Chinese have a new explosive, too. These are its fumes."

"Look out!" the mechanician yelled. "We're stepping slap into a bath of snakes. Well, I'm hanged! They're all dead—bushels of them."

Before them lay a deep rock basin just under the lowest point of the rim. It was full of hideous snakes of all sizes and colors, tied into still knots of frozen pain. Evidently the whole reptile population of the amphitheatre had boiled out of its dens in a futile attempt to escape a sudden peril. They had instinctively chosen the shortest way over the dip, only to writhe into the basin from which they were powerless to escape. Even a snake cannot get very far without bones.

The mechanician, who prided himself on being a hardboiled guy, grasped one of the largest snakes just behind its flat, evil head, and yanked it free of its twisted brothers.

"I guess it's dead, all right," he grinned. He cracked it like a whip. "Limp as a kelpie. Here, let's see your teeth, old boy."

For the first time he noticed that the vicious jaw, unlike the resolute firmness of the average snake's mouth, hung limply apart.

"Look here!" he exclaimed to the pilot, "it's some sort of a sucker. It has no fangs."

"Nor bones, I guess," the pilot added, pinching the horny lips together. "Snakes usually have jaw-bones, don't they?"

"Sure, to hold the fangs in place when they bite. I wonder what killed them?" He sniffed the cold skin. "Fresh as a mountain trout," he commented critically. "I guess the Chinese gassed them. We'd better look out."

Before passing over the rim they inspected twenty or more of the snakes. Not one had bone or fang in its limp body.

"Well, I'm glad they're dead," the pilot remarked, "even if they couldn't bite."

A shout of horror burst from his throat. He had seen Markoff. What looked from the air like a man lying on his back in a crimson pool appeared from a closer view as nothing that had ever been human. Only a darker pattern on the shapeless stain recalled a blurred outline of a thing with arms and legs. The living crystals had done to Markoff what they did to the burros in the desert.

The men forced themselves to investigate; the remains might be those of an American. What they first found was sufficiently puzzling to men who knew nothing of the circumstances of Markoff's death. Their find consisted of two leather boots and exactly ten metal buttons. Whoever had slashed his victim in this incredibly shocking manner had evidently first stripped the wretch of his clothes, for not a vestige of clothing remained. But why had the murderer discarded the metal buttons? Ten buttons won't hold a man's clothes together. The others had evidently taken the assassin's fancy. He seemed to have kept them. Indeed "he" had, although the men could not guess why. The remaining buttons were of bone. They concluded that what lay before them was the work of a madman.

It was the mechanician, still subconsciously impressed by his handling of the snakes, who first observed that there were no bones under those red strands. The discovery sickened him. The supposed madman had murdered his victim for the skeleton. But, as the pilot soon discovered by looking in two of the four likeliest places, the assassin had thrown away the victim's nails. There were exactly ten. Had he looked in the grotesque leather boots he might have found ten more.

The pilot slipped. His foot kicked a small, oblong object free of the mess. The thing tinkled as fragments broke off in its skip over the uneven quartz. For all the world it looked exactly like a stone book, which is precisely what it was.

The book was open at its middle page. The pilot took out his handkerchief and picked up the book. The open stone pages wiped easily. They were as smooth as glass, evidently of pure quartz. As an object of art the thing was priceless.

At first the men thought it represented the lifelong labor of some infinitely patient Chinese artist in crystal. In the museum at Shanghai they had seen miraculous carvings in rock crystal, but this surpassed them all. Its thin pages could not be turned, of course; otherwise they were perfect, each an individual work of art. Its coloring, too, apparently natural, was exquisitely delicate. The open pages were mottled with a Chinese green like the rarest jade, and the edges of the fast shut pages showed that every one, though invisible, was equally beautiful. On the open pages a curiously regular pattern of extremely faint, metallic gray enhanced the irregular green as if it had grown there. This pattern seemed to be embedded in the thin pages.

The pilot was a college graduate with a degree in mechanical engineering. The suspiciously "human" regularity of that gray pattern fascinated him, and for a moment he forgot his surroundings. He found himself slowly deciphering what he saw.

"I'm crazy," he muttered. "Here, see if you make anything out of this."

He indicated a cloudy gray spot in the middle of the page. The mechanician had good eyes.

"243.7," he read slowly. "I'm not sure about the decimal point."

"That's what I think I see. So I'm probably right about the rest." He read aloud, a letter at a time, a short chemical equation. "Now I know," he remarked in a strained voice, "what that mess on the rocks is. It is what is left of Mr. Saxby."

"How do you know?"

"This is the book he kept pulling out of his pocket and reading when he thought we were going to crash in the fog."

"But his book was paper—just a common notebook."

"I know. This is the same book. I saw him studying it in Shanghai while you were tuning up. There's no use arguing. I don't understand what all this is about. It has happened. That's all."

"What had we better do?"

"Hanged if I know. If Mr. Saxby got out, probably the others did too. There's a hole. They may have come out that way. If they did, they weren't killed here. I suppose we had better continue the search till our gas gets too low. Then we may as well fly back and tell General Maitland."

"He'll call us liars."

"I'll take the book along. It proves something, but I don't know what. I wish we could bury that."

"There's no dirt within a mile. Come on; I'm sick."

Looking up at the cloudless blue before they took off, they saw four black shapes, wheeling slowly above the amphitheatre on motionless wings in the morning sunshine.

"He won't need burying," the mechanician remarked. "What a sight to see before breakfast! Give her the gas!"

Part III—The Professional

CHAPTER XII

From the Grave

IT was no cynic, but one of the world's most humane poets, who observed that the evil men do lives after them, while the good is buried with their bones. For obvious reasons the scavengers of the air could not inter Markoff's good with his bones. This, however, did not nullify the first part of Shakespeare's profound theorem with respect to him. Markoff was dead, indeed; his evil was still as lusty as four vultures. In fact, as the day wore on, it almost seemed as if Markoff himself were rising from the dead. It is only a slight coloring of the sober facts to say, metaphorically, that he rose from the grave a few minutes after eight on the evening of the day following his fleshly burial.

When the bombing plane soared aloft from the place of death to reconnoiter for the marines the morning was still young. The aviators flew first toward the pass into Shen-si, thinking that the marines, if indeed they had escaped, would be getting out of Kansu as fast as possible. Their job with regard to the missionaries having evaporated, there was no reason why they should linger to tempt the touchy Chinese.

Just as the aviators flew over the pass, nature fired her second shot in the war against living things, or rather she fired a volley. In rapid succession a series of ear-splitting concussions jarred the air like titanic battering rams hammering at the steel barriers of an impregnable fortress, as stratum after stratum of the subterranean rocks suddenly split and burst asunder.

Knowing that the marines could not have marched farther than the pass, the aviators wheeled about and whizzed back toward Teng-shan. Glancing down they saw a succession of furrowed billows racing with incredible speed over the plain from the mountains of the caverns to the far horizon where they seemed to break. Farms and villages rose and fell like helpless rafts as the long furrows swept under them on their race to the northern deserts. Each volley fired by the snapping strata sent a fresh train of earth waves speeding over the plain in parallel ridges, till, without warning, the forces of nature opened their grand offensive from four fronts at once, and four furrowed tides fought to possess and destroy the battlefield. The waves in each of those tidal armies swept on in parallel regiments, but each army pursued its own direction from the base of the mountains out over the plain. As the crests of one tide reenforced those of another the heaving earth suddenly shot upward on a crest twice the height of either; as hollow met hollow, farms and villages were snatched from sight faster than they could have fallen down a void; where four crests met the brown earth was tossed high into the air in blocks of shattered spray a mile square, and where three or four hollows crashed together rocks, men, trees and cattle—everything was pulverized and ground together into paste.

The roar of the conflicting tides drowned the sharp crescendo of the snapping strata; huge fissures miles long crossed and criss-crossed the choppy sea one instant only to vanish the next, and slowly the whole mountain range of the caverns, with a shudder that shook the very sky, slipped from the core of rock to which it had been moored for a million years and began to flow over the plain. Momentarily the tides subsided. The steady roar of the advancing tidal wave of earth and rock—a whole mountain range in motion—gathered volume as the moving mass slowly gained momentum and marched upon the shattered plain to submerge it in a deluge of crumbled rock. No man-made noise could survive above the thunder of that billow curling over the wash of stone avalanches that prepared its way and made its flow smooth; the men in the bombing plane, hovering over the column of dust that had been Teng-shan, no longer were aware of their own incessant racket.

When the first shock came, Saxby and the captain had just concluded their interview with the governor of Kansu. The last words of that skeptical Chinaman were addressed to Saxby through the missionary.

"Why should I warn the people of Teng-shan and the farmers of Kansu to flee? This man," meaning Lane, "has lied about the Americans in Shan-si. I questioned," here he smiled significantly, "the Christian telegraph operator. He told me everything before he died. He was a truthful boy. So when you say there is to be an earthquake that will shake Kansu from the mountains to the desert, I think you are lying. When we run away you stay behind and loot. Markoff has told me that all Americans are liars and capitalists. I believe him. You came to Kansu to rob us. The missionaries were an excuse. I am justified in executing you and all of your men, and I shall do so. You have rifles, but no machine guns. Last night my soldiers carried back their machine guns that you tried to rob them of, and strengthened the defenses of this palace. Your men are now trespassing on my grounds. They do not see the machine guns, for my men are well hidden. If Kansu is to suffer an earthquake, as you say, you will never know it."

The governor himself knew what happened. The missionary had not quite finished translating the governor's speech—the details of Lane's and Saxby's sen-

tence had not yet been translated—when a heavy beam from the ceiling smashed the governor's table to splinters, brained him, squashed the missionary and two of the guards, and totally disabled the remaining four.

Saxby and the captain found themselves in the governor's private garden just as the palace collapsed. They remembered a wall that suddenly opened like a door, a leap, and nothing more. The marines, standing at ease under the mulberry trees, were not crushed by falling buildings as were the Chinese soldiers tensely waiting to open fire at the governor's order.

As for the rest of Teng-shan, it experienced all the usual freaks that accompany major earthquakes. Out of a group of twenty human beings, all apparently exposed to precisely the same hazard, nineteen would be killed outright while the twentieth escaped without a scratch. One man too terrified to run would weather the cataclysm unharmed; his more prudent friend, abandoning him to his fate, stepped instantly into a gaping chasm, not two feet away, that opened to receive him and closed immediately. One squad of marines, reeling after another to a supposedly safer spot, saw eight men vanish without ever knowing where they went.

Of Teng-shan itself not one stick of house or hovel remained in the place where the builders had put it, and, literally, not one stone or brick was left upon another. They were pulverized. Yet hundreds of human beings came through as sound as ever, or with only minor injuries.

THE great mass of the population was destroyed in the first two shocks; the succeeding waves alternately buried and disinterred the victims with a sublime cynicism as indecent as any of nature's franker brutalities. Restraint and reason are for human beings, in order that nature may drug them into a false security; she herself has no other use for either. Science would seek to put a bit in her savage mouth; she submits, to delude her dupes, and then, when they least expect it, tramples them underfoot and goes unhindered on her way.

Yet man, the incorrigible optimist and practical opportunist, discounts the worst nature can do. The major shocks of that terrific earthquake, the maddest prank that nature ever played on a superstitious race, had barely subsided before the survivors were stripping poor trifles of silver and jade from the fingers of the dead and rifling their clothes for cash. In earthquakes, in fire, and in shipwrecks the rule is the same; at least some of the survivors demonstrate their fitness to survive by plundering those who have perished. And why not, these children of nature ask; what use has a corpse for rings or money? Their logic is as irrefutable as Mother Nature's.

The marines lost a third of their force. The rest, as soon as the ground stopped heaving sufficiently to permit them to stagger, began systematically searching the ruins of the palace—for imprisoned survivors only. They found none. Lane reorganized his force with the purpose of similarly combing the ruins of the whole town. The Chinese themselves, except those engaged in looting, were incapable of any rational act. Orders had to be given by signs and shoutings into ears; the rumble of the oncoming billows of shattered rock made any other means of communicating impossible. They heard the stupendous roar, of course, and guessed that worse was to come, but they could not imagine what was happening. At the moment they were at the bottom of a vast pit that formerly had been the palace grounds. They could not see over its rim as they were too close to the steepest part of the wall.

Saxby scrambled up first and saw what was about to overwhelm the ruins of Teng-shan. By frantic signals he brought the men out of the pit in record time. They did not stop for a second look. The first was sufficient to send them fleeing from the oncoming wave, every man for himself and the devil take discipline.

Saxby himself could not run. Not that he was paralyzed with fear, or too stiff from his painfully healing burns; he simply lacked the volition to run. All his mature life he had collected and loved earthquakes, and now he saw one the like of which the world had never witnessed in historic times. The "Kansu catastrophe," as it has since been named, was unique, and Saxby, the connoisseur of earthquakes, realized instantly the rarity of the spectacle. Lane, thinking Saxby was following, pursued his routed troops.

It was a sight to make any lover of nature pause. The stupendous volume of sound, as that crashing symphony of destruction rose and fell with the periodic surge of the shattered rocks, alone would have stunned the average spectator into helpless immobility. But Saxby was not average. He stayed where he stood because he wanted to enjoy it to its last avalanche of crushed rock and its last splitting discord. It was nature at her mightiest, trampling the world like an ant hill, irresistible, ungovernable, and her admirer would witness her triumphal march if it cost him his life.

He had witnessed the puny efforts of men to destroy their own kind, and the sight had nauseated him; now he would see nature demolish herself, impartially, completely, and cleanly. As far as the eye could reach the spectacle was continuously sublime. In serried billows a whole mountain range rolled forward, toppling over upon itself when some unshattered core of rock offered a moment's futile resistance to the onrushing flood, surging forward majestically over the wash of the avalanches that fingered their way forward to feel out the terrain, leaping skyward, when the obstruction yielded, tumbling and curling forward in vaster volume, again damming up over some more obstinate resistance, and again conquering, mightier than ever. A shriller, brittle din pierced the roar of the stone billows, as if millions of tons of glass were being ground to powder beneath the flood, and Saxby knew what was coming, invisibly, before it arrived.

Nature, human, animal or other, is incomprehensible. The French peasants gathered their harvests while all the hell of the West Front girdled their fields with a sea of fire. Between Teng-shan and the marching mountains a sturdy, shaggy little Chinese pony tried courageously to keep its legs on what had once been its pasture—now a jumbled desolation of disinterred rocks and chaotic clods as big as houses. Though the jarring earth tumbled stones and clods all about it, the persistent pony stuck like a burr to the one patch of turf in all that heaving wilderness. Its legs straddling wide apart like a spider's, with determination worthy of a general resolved to hold the front line at the cost of a hundred thousand of his men if necessary, the courageous pony cropped the grass. In spite of himself Saxby admired the little beast's obstinate, natural, ignorant courage. He even felt a sympathy for it; the pony refused to run because of the hunger of its belly; he, the man, was risking his life to appease the cravings of his æsthetic nature. Suddenly the pony collapsed as if pole-axed. It did not even kick. If not done for it was at least knocked out—cold.

Saxby felt that it was time to retreat. The pony's collapse was exactly like that of the firemen and the doctor when they stuck their heads under Tom's cot. A heavy gas, colorless and lethal, was creeping forward in advance of the tide. Thus far there had been no odor; the sun had not yet volatized the corruption that seeped from the base of the rotting mountains. The

gas of course was only a hypothesis. Saxby, however, believed in it sufficiently to turn his back on the grandest of all the avalanches he had so far witnessed, and run as hard as he could in the opposite direction. When he noticed also that a cold breeze, colder than the wind from an ice floe, was blowing in his face, he doubled his speed.

"Gad!" he panted, "what a fool I've been. I guess I'm dished this time."

Doubtless he deserved the worst, but he did not get it. The pilot of the bombing plane had early located the Americans with his field glasses and had followed their precipitate retreat from the pit. He had also observed that one of their number, possibly because too scared to move, stayed behind. For forty minutes the pilot had been endeavoring to attract the laggard's attention by all the noises at his command, as he wheeled in a narrow circle a thousand feet above the loiterer's head. His noise was nothing in competition with nature's, and Saxby, with no eyes for anything but the greatest earthquake in history, never thought of looking up at the zenith. Seeing that the loiterer had at last found his legs, the pilot swooped low and flew in front of him, guiding Saxby to his invisible companions floundering in a vast crater two miles away.

SAXBY'S best was not quite good enough. Glancing back the pilot saw him stumble and fall just as a fresh avalanche roared down from the main mass to within a hundred yards of the fallen man. From his observations on the progress of the tide the pilot estimated that it would be only about four minutes till the tottering crest followed the wash of the avalanche to sweep clean over it and gain a quarter of a mile in a single surge.

Saxby was on his feet again, but not running. He could not; even his iron endurance had almost reached its limit. The pilot had to act instantly or abandon the man to his doom. He acted. By the kind of miracle that favors the courageous, he brought the careening plane to rest on the hummocky ground all cluttered with ruins, just ten feet short of a crevasse that would have swallowed it, and within running distance of Saxby. The mechanician was over the side and on his way before the plane stopped. The pilot climbed out and by brute force, exerted on the tail of his bird, slewed it round for the take-off. A quarter turn brought it into position for a start that might not end in a smashed propeller or a plunge into a fissure—if they were lucky.

When the mechanician saw who it was that he was rescuing, he yelled.

"You're dead!" he shouted.

Saxby didn't hear, and the mechanician, ready to believe that this too was merely an incident in the general nightmare, did not stop to argue. He hustled Saxby to the plane and into it. One shock more to the pilot's nerves meant little. He accepted Saxby as a fact and took off, mentally balancing the probability of a smash from the rear against an equally likely crash ahead. The tide roared after them just as the plane moved forward; half a tone of shattered rock burst like a bomb against the fuselage and jagged fragments shot past their heads as they ducked or dodged, but they made it —how, they never knew. Take a chance and win is the airman's motto.

They could not land in the marines' new crater; one miracle a day is enough. Flying on at a low speed they found a practicable stretch of alluvial dirt, not too violently furrowed and fissured by the earthquake, about five miles beyond the crater. Landing, they waited for the others to overtake them. Eventually only Saxby waited; the aviators departed in haste ten minutes after they stopped.

At this distance from the stone tide it was possible to carry on a conversation by shouting. The first thing the pilot wished to know was who the dead man was.

"What dead man?" Saxby shouted.

The pilot described the place where they had found the mess. Saxby informed the aviators that it was a Russian agent—the man responsible for all the trouble with the Chinese.

"The Chinks got even with him. They cut him up and boned him like a chicken tamale," the mechanician bellowed. "Made me sick."

Saxby recognized the symptoms.

"It's a new disease," he shouted. It would have taken hours to state the facts adequately. To his intense astonishment the pilot broke the startling news that they had thought the remains were Saxby's.

"Why?"

"Because we found your book—or one just like it—made of glass or crystal. See here."

The pilot led Saxby back to the plane and produced Yang's crystallized notebook. Saxby got the shock of his life.

"Don't drop it!" he yelled. "Keep it away from any kind of earth—put it back in the plane! That's the cause of all this. Put it back, I say!"

Somewhat bewildered the pilot obeyed. So many insane things had happened already that one more might be accepted as part of the nightmare. Saxby continued, speaking rapidly.

"I was going to wait for Captain Lane to give you your flying orders. General Maitland ordered you to do as I directed; I'll not wait for Lane. Don't think I'm crazy—I'm not. Lane would order you to do exactly as I say. I predicted the earthquake from my knowledge of that book. We were warning the governor when the first shock verified my prediction. If that infernal book comes in contact with lime and silicon dioxide—common sand, quartz, granite—almost any mineral—it may start another earthquake worse than this. I don't know whether it will or not, but I'll take no chances. This terrific earthquake is only the least of what may be coming. Fly back to Shanghai with that thing, and don't stop till you get there. Don't touch anything but your plane, and don't take the book out of it. You must not get out of the plane. Send for General Maitland and tell him that I advise this.

"First, your plane is to be refueled for a flight to the most convenient American war vessel that is not less than five hundred miles from the nearest land. You are to fly at once to it—you can do it as an endurance test if you must. When you see the war vessel, relieve one another while you both strip to the skin and pitch your clothes overboard. Then drop the book in the sea—to be sure it sinks and does not float with the plane. Come down in the water. Hang on to your plane as long as you can, and souse every part of your bodies, particularly your hands. If you can't manage a thorough job that way, don't let the sailors lug you aboard till you are exhausted. Get them to tow you for an hour or more. Your plane is to be blown to bits and sent to the bottom. General Maitland will give all the necessary orders if you tell him what you have seen and say that I back my advice with my scientific reputation. I gave him one straight steer; this is a straighter. Tell him that, and tell him that the Russian agents beat us to our objective.

"Finally, he is to cable at once to the United States for the ten best geological chemists in the country. The National Scientific Council will select them and send them at once if he gives my name and says it is to avert a world disaster. In the meantime he is to send me all the chemists and geologists he can collect in the foreign concessions in China and rush them here by air.

¶ *"I wonder how brittle this rock crystal is?" Saxby speculated. He glanced up at the tremendous root three hundred feet above them, zig-zagging far out over the site of Teng-shan like a forked dart of green lightning. "If that thing up there should break off, now, and fall on us, we should be cut to ribbons before we could yell. Feel how sharp these edges are where the crystals twin. Damn it! I've cut my finger"*

He must communicate with me daily by air until the danger is past—if it ever is. Now, beat the record back to Shanghai!"

Ten hours later Kansu had stopped shaking, except spasmodically, and the shattered mountains had apparently flowed their limit. The marines, officers and men, slept the sleep of exhaustion in a large plantation of stunted firs, whose fallen needles made the ideal bed for weary bones. Saxby alone kept watch, although there was no necessity for him to do so, as there was not a hostile human being within miles. After a short foraging expedition through the ruined and deserted farms to salvage dead pigs, hens and cattle for their supper, the marines turned in to the last man. Even the captain could not have kept his eyes open to see the greatest bombardment in history. Saxby volunteered to act as sentry and they accepted. He wished to keep his eye on the expiring earthquake. The characteristic odor of decay that had followed them all day while the sun was up had gradually dissipated. Saxby felt, however, that the danger was not yet past.

Events so far had confirmed his theory in the main, although modifying it in some details. The thing, or more accurately one of the things, that destroyed Markoff was evidently a cellulose feeder. The transformation of Yang's notebook from wood-pulp paper to rock crystal threw a flood of light on the habits of at least one species of the living crystals. Anxious to observe further evidence in support of his theory Saxby could not have slept had he tried. His lonely vigil was no hardship, especially as the intense, unnatural cold forewarned him that nature had not yet done her utmost.

JUST as the night began to grow interesting from a scientific point of view for Saxby, it developed, hundreds of miles away, an unexpected human interest for the aviators. It was now about half an hour before midnight. The mechanician was taking his turn flying while the pilot slept. At the moment they were speeding eastward less than a hundred and fifty miles from Shanghai, and were some two thousand feet above the bloodiest battlefield of the Chinese revolution. So stubborn and sanguinary had been that long-drawn-out butchery, that its aura tainted the air about the plane to the point of nausea and woke the pilot. It is unpleasant to have to record such facts, but they are essential to an understanding of nature's attack; moreover they are a part of our common heritage from the war that was to end war, and there is no good reason for strewing roses on human stupidity or sophisticating it under a yellow or a red flag. Both the pilot and the mechanician became violently ill.

"Here's where I quit the service," the mechanician remarked, trying hard to swallow his disgust. "You saw the West Front; I didn't. You're hardboiled; I've still got a stomach. Watch me cash in and get out when we get to Shanghai."

"It won't be much longer now—less than two hours. You'll recover after you've had a bath."

"In salt water. Yes, like hell I'll recover. I don't give a damn if I drown. Say, do dead Christians smell like dead Chinks?"

"Worse. Cheer up, we'll soon be there."

On the moonlit battlefield beneath them all was quiet—from a military point of view—with a ghastly serenity that mocked the dead and jeered at the living who were yet to slaughter and be slaughtered. China at last had awakened from her sleep of two thousand years; she was westernized, civilized, and this portion of her at least smelt like it.

The false peace of the night was not due to any formal armistice, but to one of those tense lulls that sometimes supervene in times of madness when, by tacit consent, the opposing armies stop fighting one another to fight their common enemy before she can steal a march on them all and impartially obliterate friend and foe alike. If there is one thing that Asiatic soldiers dread worse than death, dysentery or the devil, it is the bubonic plague. The medical corps of neither army would as yet admit an indisputable case of death by plague, but both acknowledged an alarming number that looked suspiciously like the real thing.

Neither side had fired a shot for the past thirty-six hours; both were engaged in burying their dead as fast as they could scratch the shallow ditches in the rocky soil. Mere burial in this case was insufficient. The transports of both armies were straining every nerve to rush vast quantities of quicklime and disinfectants from the cities to the battlefield. The congested roads, the wretched inefficiency of the transport service, and the keen competition for the fast diminishing supplies of sanitary materials all indicated an overwhelming victory for nature in the immediate future. The faster the diggers worked the more they had to do, and no man could say that he would finish his particular bit before the grinding cramp seized him by the middle and tumbled him headlong into his half-completed job.

Naturally the nerves of both armies were on edge. The least hint of a check in its necessary work might well send either army into a Chinese berserker rage and incidentally end the revolution in its favor. The side that fired the first shot would probably get it in the neck; the victors might celebrate by infecting the entire civilian population.

The course of the bombing plane lay directly over the main defenses of the army holding the southern edge of the battlefield. Both armies were thoroughly westernized. They had all the approved weapons, and lots of them, including machine-guns, flame-throwers, gas, tear and smoke bombs, field artillery of the latest French pattern, American and European airplanes, trench mortars, blimps—one apiece, and anti-aircraft guns. In fact, their equipment would have been a credit to any nation on earth, for they had bought it with their own money, a treasure at a time, from most of the nations on earth. The cheaper truck, such as rifles and shells, they manufactured themselves under the expert direction of European technicians. They were quite proud, poor devils, of their aptitude.

The combination of a bombing plane in the moonlight and a general on the verge of hysteria made a highly explosive mixture. The general quickly verified the fact that no plane on his own side was aloft that night. He did not act in haste. Although he felt morally certain that his side was playing the game straight, he took pains to ascertain the truth by telephone. Since it was not one of his own birds, it must be one of his rival's. Practical soldier though he was, he cursed his enemies for a pack of inhuman blackguards, technically within their rights as laid down by the laws of civilized warfare, but beyond the pale of human decency in their sneaking disregard of an unwritten agreement. He personally telephoned to the anti-aircraft batteries to open fire.

"What the hell!" the mechanician shouted as the first shell burst like a white mushroom in the moonlight.

"What the hell" was right. The second shot brought them down—two thousand feet. Perhaps it was lucky in more ways than one. If the second shot hadn't got them the two hundredth would. They escaped the suspense.

The plane crashed directly astraddle of a long, shallow ditch packed like a box of sardines with the victims of a sudden sickness. The loose gravel had not yet been thrown over them, but the quicklime had. As the fuselage of the plane burst, the fragments of Yang's

A pillar of densely packed green crystals, ten feet in diameter and six feet high, squatted in the mire, where, less than a second since, a living man had stood. The white of his naked body gleamed mistily at the core of his living tomb

petrified notebook shot out and buried themselves in the quicklime. The bodies of the aviators followed.

The burial squad removed what they could of the plane and mechanically went on with their work, shoveling gravel.

An officer inspected the wreck. It was not worth salvaging. He abandoned it and finally ordered his squad of shovel men to get to work on the next ditch.

The general's nerves had snapped. His Oriental calm vanished in a blazing, occidental, homicidal fury. The field batteries were ordered to lay down a barrage to prepare the way for an infantry attack by moonlight. From a military point of view it was sheer insanity; but the general was beyond reason. Burial parties broke up and raced to join their companies. Thinking like the general that they had been spied upon by the enemy as a preliminary to a night attack, they seized their rifles and machine-guns with a will, inspired, as they were, by a sort of courage of panicky desperation.

The first salvo of the barrage roused the opposing army to the pitch of madness. Their nerves too had snapped. The officers had difficulty in holding the infuriated men back. They did not wait to be attacked. With fixed bayonets they plunged forward to burst through the red curtains of the barrage and attack.

Half of them never reached their objective. The other half, however, made up in spirit what they had lost in their number.

The field gunners of the attacked saw them coming, became confused, shortened the range, and drummed a devil's tattoo upon their own front-line trenches. The maddest battle in the history of the Orient was on. There was no doubt about that.

It raged twenty hours—all that night and all the next day till eight o'clock in the evening, when the full moon rose on a shambles that was silent, save for the cries of the wounded, only because both armies had run out of ammunition. Exploding dumps, deliberately touched off by the Russian advisors of the Chinese in more than one instance, had hastened the end. The Russian agents were strictly impartial. They did what lay to their hands, whether it benefited friend or foe. As in diplomacy, so in war; to double-cross is to win

the day—for yourself, if not for your allies. From the red point of view the melée had proved a glorious victory; from the Chinese it was a draw. Both armies were out of the war for good. They had ceased to exist as armies; their remains would be absorbed into less butchered organizations. By that much the communists were nearer their goal of an Asia regenerated by the new faith.

Every yard of the battlefield had been trampled over fifty or a hundred times by the frenzied combatants. If indeed the ground was infected the plague was now thoroughly disseminated. Nature, however, did not have to rely upon a mere plague of buboes, of swelling lymphatic glands, to demonstrate her superiority in the art of war. She chose a weapon almost infinitely older than the most ancient disease germ.

The sword she grasped was forged in geologic stone, ages before organic life began, and she had not forgotten in all that time how to use it.

The general whose order had initiated the madness lay moaning on the loose gravel, mortally wounded. Like a captain of old he had lost his head in the heat of battle and had risked his own life to rally his wavering troops.

Under his personal leadership the battered army had pulled itself together for a last supreme assault that swept the enemy from his feet—for half an hour.

Then the tide turned and the dead of the enemy were duly avenged.

Again and again that fluctuating tide took up the quarrel, first of one side, then of the other, with the foe of the moment, in order that its temporary friend might sleep in peace on fields too barren to support a white poppy.

The dead of both sides slept soundly, too weary to dream that the victorious fortune that avenged them was a deceiving harlot.

As the dying general's eyes clouded he had a strange vision of death. From the bloody charnel before his eyes he saw a transparent sword shoot into the moonlight and glitter icily as if crusted with diamonds. The sword seemed to live; flickering bands of purple and green light pulsed along its axis in the substance of the crystal, and myriads of spicules, bright as sparks of electricity, budded along its brittle edges. Suddenly two arms, like those of a cross, shot from the sword a third of the way down from the tip and began to grow. The vision may have comforted the dying man, for he was a convert of the missionaries. It is possible that he closed his eyes in peace on a symbol of mercy conquering the world.

If he did so, he died happy, for what he saw was Markoff rising from the dead.

A wounded infantryman by the general's side also saw nature's apparent miracle and tried to crawl away. The grave where the sword grew burst and hurled the wounded man free. Screaming with terror he clapped his hands over his stomach and fled. He had seen the enemy.

He stumbled over the propeller of an airplane, picked himself up and ran with the rest. All had seen it now.

Those who had legs ran.

CHAPTER XIII

Conflict

WHILE Saxby watched, and under the same bright moonlight the maddened Chinese were annihilating one another hundreds of miles away, the marines slept. But they did not rest. The unnatural cold chilled them to the bone, and a specific poison, odorless as clean air, tainted the night. They began to toss and groan in their sleep, unable to shake off the dreams that defied reason and yet were more credible than any human experience.

"I had better waken them," Saxby muttered to himself. "They are having the same dream that I had the night Yang died. Gad! I begin to feel it myself. Something's going to happen; I can feel it coming, and I think it is coming pretty soon."

He tried to move and discovered that he could not. He seemed to be paralyzed.

"Something new," he remarked. "Well, let it come. I can't stop it."

Unable to move a muscle he sat staring straight ahead over the moonlit desolation of the shattered mountains. To test the strange paralysis he tried to shout, only to find he had lost control of his throat. The automatic functions of his body continued normally. His heart did not lose a beat, he breathed regularly, and he saw and heard as clearly as ever. Then he became aware that his hands and feet were losing all sensation. The numbness rapidly spread over his whole body, and he sat as rigid as a rock, without sensation, yet fully conscious of what he saw.

His condition was precisely that of a patient submitting to a surgical operation under one of the newer wonderfully effective local anæsthetics.

Naturally he wondered what the nature of the operation was to be.

It began with a tremendous roaring swish like the simultaneous ascent of thousands of gigantic skyrockets. The wilderness of shattered rock that had overflowed the plain for a distance of fifteen miles or more began to boil. Its surface rose and fell tumultuously in huge bubbles of rock and earth that puffed up suddenly, burst, and collapsed with a brittle din that shook the sky.

This phase lasted but a few seconds.

First one bubble survived, then another, until the whole desolation became a city of bleak, colossal domes. The domes began to glitter icily in the moonlight, and almost instantly the imprisoned life that was in them burst forth and multiplied. Jostling one another to ruin, the furiously increasing masses of crystal flashed out gleaming arms that branched and begot new colonies of glittering crystal; these fed for a moment on their generative substance, then instantly burst out in explosive growth in all directions, repeating the conquest of space. As yet they had no mode of locomotion; their sole power over distance was growth. In their urgency to survive, the opposing masses shot their gleaming progeny at one another, devouring the diminishing distances between them.

Their one instinct, if they had any, was to exterminate their competitors by seizing and absorbing all of the food by which they might increase.

Before the last alley closed and became a dense mass of furiously growing crystals like the rest, the mountain range that had flowed over the plain was a vast concourse of gigantic crystal shapes, towering and flashing in the moonlight, that shot upward with an accelerated growth that menaced the sky. Each glittering pinnacle budded at a thousand sparkling points into living spears of crystal; these shot into the night, themselves to become the sources of explosive life. Neither upward nor lateral growth apparently had any natural limit, and the huger the vast bulks became the faster they grew. The whole mass pulsed and flickered with striæ of green and purple light deep within the hollow crystal masses, and from the brittle, spearlike points streamed

steadily upward innumerable brushes of clear, cold blue light. The loftiest pinnacles, leaping skyward with an ever greater speed, bristled with electricity whose sharp, dry hiss all but drowned in volume the creeping rustle of an incessant growth.

With a succession of pealing clashes of crystal masses the last lanes closed and instantly became new foci of fecundity. For perhaps a second the densely packed mass withstood the internal pressure of its own lateral expansion. Then with a transcendent crash thousands of irregular chasms were instantly created, radiating in all directions through the still growing mass, as the hollow crystals collapsed along the planes of greatest pressure.

As the crushed crystals released the purple and green luminescence which was the source of their life, they instantly lost their solid structure and sublimated into a heavy, invisible gas. Where one crystal volatized, the impact of its destruction set free the imprisoned energy to shatter the densely packed crystal matrix in which it was embedded; the wave of destruction thus started stopped only at the densest cores, isolating them as prolific centers of unabated vitality.

Again the merciless contest for possession of the nutritive rocks was fought out, but with diminishing speed, and again the resultant deadlock was suddenly broken by waves of destruction that cleft the solid unit into thousands of isolated enemies. The terrific speed of the encounters became less as the nutrition in the rocks was drawn into successive generations, to be dissipated into gas as enemy clashed against enemy, till, after the hundredth assault the lanes ceased to close, and the towering victors grew slowly and silently upward, starving on their exhausted rocks. The food they had battled for no longer existed. Ten thousand conquerors towered in the moonlight to await the trivial accidents that would destroy them as they had destroyed their enemies.

The whole conflict lasted but an incredibly short time as men measure events. From the instant when the first gleaming spire rose from the rocks to the last clash but thirty or forty seconds had elapsed. Yet every detail of it was fixed distinctly and indelibly on the consciousness of the one human being who saw it all from beginning to end.

Saxby would have closed his eyes and stopped his ears if he could, but he had lost control of his body. By a sense more ancient than either sight or hearing he experienced a torture less endurable than either the sights or the sounds of that conflict between things which lived, and yet were neither animal nor plant, for the cells of his whole body were aware of the combatants' agony as parts of their substance died.

Each wave of destruction that cleft the warring masses asunder rocked the very atoms of his own flesh and bone with a pang that was not mortal pain, but the after-shock of an immemorial dissolution. The stuff of his own body had suffered in forgotten ages as those things were suffering now; before the first life started on the millions of years of upward evolution that had culminated in his own body and in his mind, the substances of his body had lived as these things were living, and had died in agony such as theirs.

IT was not a dream. The men who slept, drugged by the same poison as he, also experienced it. Nature does not communicate with its creatures by reason alone, nor through the haze of ideas that reason evolves to explain nature, for it is insensible to reason, but directly, thing to thing. Because we have existed, thought and reasoned for at most a few million years—which are less than a pulse beat in the life of the stuff of which we are made—we assume that nature has but one mode of expression and but one way of communicating with its creatures. When the last man has ceased to think, the universe will still be evolving as if our race had never existed, and possibly the shadow of our own passing may fall upon the life that is to follow us, chilling our successors with the memory of a pain that only their atoms remember. May no accident precipitate us into their age as the living crystals were hurled into our own. With all their insensate ferocity, according to the lonely watcher who saw their war and who suffered in their death, those crystals were less terrible than some whose nostrils are filled with the breath of life.

The discharge of millions of volts of electricity from the warring crystals, and the escape of vast quantities of ionized gases as the dying bled out their purple or green lifeblood, incurred its inevitable reaction. Even as the clashing Titans warred, grinding themselves and their opposing kind to dust that sublimated instantly, the suspended moisture of the chilly air condensed into black thunder clouds above their splintering pinnacles.

When the conflict ended, and the victors towered up in solitary might awaiting starvation and the dawn, a vast canopy, black as anger, sagged down from the sky above them, shutting them from the moonlight and penning them up in all but total darkness. All about their sombre isolation a soft radiance flooded the plain, and it became the dream, the unsubstantial vision of an infinite ocean from another life; the black island of the Titans awaiting the lightning was the reality, the substance, and the familiar dwelling place. The lucent calm, glowing like a milky opal about the black cliffs at the base of the island, and receding with diminishing brilliance to infinity, was the incredible memory; the stark island; the vivid present.

The sooty shadow, under that black canopy instinct with lightning, was the natural habitat and fecund breeding place of the living crystals that had bred and multiplied in sunless caverns to burst asunder the mountains; in total darkness they increased without restraint; in sunlight they ceased to multiply. Injured in darkness they still lived; the most trivial wound inflicted in full daylight slew them progressively and swiftly from pinnacle to root. In one last effort to increase in their fostering darkness, the living crystals drew from the impoverished rocks the last traces of their silicon, absorbed and digested it into the compounds that gave them life, grew explosively for a fraction of a second, and ceased absolutely to grow. Unless transplanted to fresh feeding grounds the ravenous Titans must stand where they were rooted, and starve till the accident of a thrown missile should break a fragment from the brittle armor of one, releasing the prisoned life and letting the famished thing perish utterly.

The black island leaped into stark relief as the lightning struck the highest pinnacle, demolished it, and sent the towering crystal crashing down in a wave of progressive ruin to fragments that volatilized instantly. The following crash of thunder, sharp as a pistol shot, was the signal for the sagging canopy to release all of its forked darts. Under the volleying thunders that jarred the plain like a rapid earthquake, the stabbing lightnings etched every glittering detail of the motionless Titans in glaring relief, playing harmlessly about a group of fifty or a hundred, only to leap suddenly away and strike down a solitary martyr. As a colossal crystal expired, the man watching its extinction suffered its infinite pain, and the sleepers dreamed of its agony with every atom of their bodies. The vast army of the victorious crystals that had survived by annihilating their kind dwindled rapidly to half its numbers, then to a quarter, and then more slowly, till but a scant dozen of Titans stood where they had grown, powerless to flee,

awaiting their doom. A single spurt of blue fire from above destroyed all but three; the clouds burst, and with a roar that might have been heard fifty miles let down their deluge.

The three survivors toppled slowly over on the dissolving earth and came gently to rest on their sides in the flood, exposing their matted roots of crystal to the rain.

The lightnings did not cease with the coming of the rain, but continued to strike viciously at the last of their fallen enemies. In falling the three had exposed their secret places, the very hearts and fountains of their life. Through the crystal curtains of the rain it was not possible to see precisely what happened to the exposed roots about which the lightnings concentrated their attack; yet the quality of the flickering light which they emitted changed visibly. It was in the roots that the purple and green light, the lifeblood of the living crystals, first generated as the monsters grew. Passing into the hollow crystals that budded from the roots, the light gave life to the branching mass, and carried with it the principle of life and generation to the farthest tips. As the glancing lightnings played all about the roots the quality of the light underwent a gradual change. The purple separated from the green and darted through the limbs of the recumbent masses, while the green, its brilliance intensified, remained in the roots. As if repelled by the green, the lightnings followed the purple, stabbing viciously. Simultaneously the recumbent purple branches of all three were struck. The stricken branches withered instantly, and the same bolts which destroyed them fused the ends of the huge stumps, sealing up the green light in the roots. The lightnings ceased, and a pall of darkness descended with the flood. Through the black torrent three misty green embers glowed and flickered evilly, waiting the accidental missile which would liberate their prisoned life to ravage the world.

A sleeping man stirred in his dream and groaned. Saxby felt sensation steal into his nerves once more. The man who had groaned staggered to his feet in six inches of water, cursed, and shouted to rouse his companions before they drowned.

"What a hellish night!" It was the captain's voice. "Where's Mr. Saxby?"

"Here. I'm beginning to move again."

"Why the devil didn't you waken us?"

"I couldn't. You were drugged into paralysis. So was I. But I saw everything."

"I dreamed it," a man muttered. "Why can't I move my legs?"

"Gassed," Saxby informed him. "Lie still. You'll find your legs in a minute. This downpour is dissolving the poison like salt and soaking it into the ground."

"There will be a flood if this keeps up another ten minutes," Lane remarked. "Give us a hand in rousing the men. We must move higher up the slope at once."

It was a half an hour before they were on the march uphill, slushing through a torrent of gravel and muddy water that almost swept them from their feet. At length they reached a place of safety and stood about miserably in the dark and the rain waiting for daylight.

On comparing notes Saxby and Lane found a remarkable similarity between their awareness of pain during the battle of the living crystals, although one had been stupefied in sleep and the other intensely awake. Questioning his men Lane found that they, too, had distinct recollections of the same thing, although only three or four had the skill to express graphically what they had "dreamed." On being assured by Saxby that the rain was disposing of the poisonous gas for good, the men brightened. The downpour continued to within an hour of daybreak.

The sun rose red upon a welter of white mud—the sticky paste of crushed rock from which every particle of silicon compounds had been absorbed by the living crystals. Most of this stuff was pulverized limestone. The living crystals, it appeared, needed only a small amount of lime or other calcium compounds to start their explosive growth; their food, so far as they obtained it from rocks, was silicon dioxide. From the fate of Tom's cotton mat and Yang's woodpulp notebook, it was clear, as Saxby had already deduced, that some at least of the crystals could draw nourishment from cellulose. An equally probable theory suggested was that at some stage of their development the crystals in which both the purple and the green luminescence played the part of blood or chlorophyll, could live and multiply on both kinds of food, silicon and cellulose, but that they preferred silicon and thrived best on it. In fact some of the phenomena indicated that these dual monsters could absorb only a limited amount of cellulose, no matter how huge they became. When the lightning which must have been electricity of some kind, positive or negative, played about the roots of the three survivors, it repelled the oppositely electrified gas, the green, into the roots and pursued the purple into the farthest tips before striking the branches of hollow crystal and sealing off the green in the roots. Such was Saxby's tentative explanation to Lane as they stood staring out over the mass of white mud that buried the ruins of Teng-shan. The deluge had one good thing; it had effectively sluiced the earthquake fissures full of gravel from the undestroyed hills.

THE men gathered in silent knots viewing the three enormous roots, towering up in the cold morning air, like the wrecks of colossal icebergs, which were all that remained of the vast forest of monsters that perished in the night. Saxby was uneasy.

"I can't understand," he said, "why those infernal things don't melt into gas as the sun strikes them. They must be a new breed."

"Let's walk—or swim—over and take a look," Lane suggested.

"Not yet. Give the sun an hour. If they're not dead then, I'll go with you. What about sending the men off on a foraging expedition in these hills? There must be dead pigs or chickens in the ruins of the farm. I'm starving."

"So am I. We shall have to get over the pass into Shen-si today. I'll send the men off to see what they can do."

"That's the stuff. Tell them to bring back a cow or something for me. I've got to stay and see the end of this."

When, at the end of an hour, the three bergs of crystal showed no sign of melting in the hot sunshine, Lane and Saxby made their way down to the white, sticky, steaming mess. As they slipped and floundered through the mire stretching for miles between them and their goal they regretted their early start. The deluge had washed the lethal gas of the crystals' destruction from the air thoroughly enough, but the stuff still poisoned the soil. Under the sun's rays it was now decomposing in the paste which it impregnated. Every step released a sickening puff of the repulsive gas. Although it was not definitely poisonous in this advanced state of decay, its indescribable odor was all but unendurable. Only an insatiable curiosity on Saxby's part held Lane to his intention.

Presently splintered timbers, fragments of copper waterspouts, and the remains of three machine guns sticking up from the mire, announced that they were walking over the churned-up ruins of the governor's palace. They were now rapidly nearing the smallest

of the crystal "bergs." Saxby walked warily ahead, glancing sharply from side to side.

"I say," he called back, "do you notice anything?"

Lane, trained as a soldier to observe the minutest details of the enemy's territory, replied that he did. The metal scraps were more plentiful than ever, and two twisted copper spouts showed that they were still walking over the ruins of important buildings. There was, however, a total and suspicious absence of wood. Not a splinter was to be found.

"Evidently that green devil squatting there like a tame iceberg is a cellulose feeder," Saxby remarked.

"Squatting" was rather a contemptuous term to apply to the huge shape that towered above them like a skyscraper, shadowing the mire with its distorted limbs of hollow crystal for a radius of a quarter of a mile. Through the vast bulk of its main mass, and along the jagged "roots" that sprawled in all directions, a dull green light pulsed slowly as if the creature had a living heart. Watching it in awed silence the men almost heard the steady beat of the life flowing and ebbing through the crystal arteries of the thing. They could not doubt that it lived. Saxby broke the silence.

"After last night nothing surprises me. Yet this beats them all. You can see it live, or rather you can see it starving to death. There's not a stick of wood or any other cellulose material within half a mile of the infernal brute, and that, I'll wager, is the only sort of stuff it can absorb. It must be a cellulose feeder. What would happen, do you suppose, if I were to go back and get one of those posts and offer it to the brute?"

"You might try it and see," Lane suggested. "I'll wait here."

Saxby was as good as his challenge. He started back to get a stick of wood. Lane stopped him.

"Don't be a fool! You haven't the ghost of an idea how that green devil eats its food when it gets the chance. We saw how the purple and green got at Markoff's bones. Once is enough."

"All right," Saxby laughed. "I'll have to wait till you're gone. Shall we go up and take a look at him at close quarters? I want to see how brittle he is."

"I'm game." He suddenly remembered what had happened to Tom's mat. "Take off your clothes," he ordered, proceeding to set the example.

"What the devil for?" Saxby demanded.

"You say it is a cellulose feeder. There's a lot of cotton in our clothes. I have a wife and kid in Los Angeles. Want any more reasons?"

Under protest Saxby stripped to the skin. Lane would not even permit him to put his shoes on to protect his bare feet.

"The fact that Markoff's boots and nails were not destroyed doesn't prove anything," he objected. "Nor does the fact that the hoofs of the burros came through unchanged have anything to do with us. Neither you nor I ever saw an all-green brute like this. Ours all had a dash of purple. This fellow may relish leather and horn and stuff like that as much as Markoff's seemed to enjoy bones and cotton. You make your inspection in a state of nature or you don't make it."

Grumbling at Lane's "militarism," Saxby submitted. Naked as worms the two men passed into the cold shadow of the colossus. Though neither admitted it till long afterwards, both were so stiff with fright that they had difficulty in making their legs move. Had either been alone he would never have dreamed of going forward. Afraid of acting the poltroon before his companion, each made a fool of himself, for it was nothing less than ignorant bravado to tempt the devil of whose habits they knew precisely nothing, except that they were probably evil.

On close inspection the towering buttresses of the creature appeared as nothing more ominous than huge, hollow crystals, packed solidly together, and filled with a moving green light. The whole structure gave an impression of massive strength, and somehow, for the feeling it induced was undefinable, a sullen threat of immense stores of creative energy locked up within the crystal cavities.

"I wonder how brittle this rock crystal is?" Saxby speculated. He glanced up at the tremendous root three hundred feet above them, zig-zagging far out over the site of Teng-shan like a forked dart of green lightning. "If that thing up there should break away now and fall on us, we should be cut to ribbons before we could yell. Feel how sharp these edges are where the crystals twin. Dumn it! I've cut my finger."

"Don't do that!" the captain yelled.

Before Lane could stop him, Saxby had dealt the crystal wall a resounding blow. The hollow crystal vibrated, emitting a deep, bell-like note that was inexpressibly mournful. The sound died away in the vitals of the thing and the wall ceased to shudder.

"You could almost imagine the brute had nerves," Saxby remarked. "But, of course, that's rot."

"What did you hit it for?" Lane expostulated, his own nerves on edge.

"To get some idea of its elasticity. I wanted to find out what are the chances of killing it with a judiciously thrown stone. From the way the crystal vibrates I infer that it is extremely brittle." He looked up at the hanging root. "Before the breeze grows into a full-sized wind and snaps that thing off, I think we had better retreat. I don't like the way the gusts eddy about the base of this berg."

As they put on their sodden clothes they held a council of war.

"These infernal things have got to be destroyed before you leave," Saxby declared. "There's no telling what a sudden storm may blow up. These are cellulose feeders, pure and simple. I'm convinced of that. Suppose there is another storm and a high wind. Those roots will be blown down and smashed into millions of bits. They are exceedingly brittle. When they do smash, they will go all to pieces, and vast quantities of pulverized glass will blow all over western China. What if some of that dust settles on a forest, or even on a grove like the one we camped in last night? Although I am not sure of my deduction, I believe that it is certain that something bad would start.

"With abundant nourishment the germs of life in the dust might well generate a plague of the huge brutes that would sweep the world and denude it of all growing things—trees, grass, shrubs and all. We saw how the silicon feeders stop growing when they have exhausted their food. They can't budge an inch, except by growing laterally, from the place where they take root. The slightest impact jars them to pieces; the breaking of the brittle crystals starts a physical reaction that dissolves the solids instantly into heavy gases. Then, when the sun rises, it finishes the killing by decomposing the gases into lighter, unstable ones that are perfectly harmless, apparently, and don't seem to retain their composition long. That they smell like the very devil while they are disintegrating is merely an unpleasant detail of no significance. Now, I vote that we act on these obvious hints and try our luck against these three green devils before you leave. I've got to stay here till General Maitland sends me some word and a geologist or two."

AFTER much argument Lane finally agreed. The point which decided him was not made by Saxby. That intrepid collector of earthquakes thought nothing

of his personal danger. He never even mentioned it. Lane simply could not leave him, even with a squad or two for protection, to his own devices. To do so would expose him and his insatiable curiosity to almost certain destruction, for Saxby would never be content, with Lane out of the way, until he had explored every crystal of those evil bergs. With the devils destroyed before he left with the main body of his men, as he must do owing to the scarcity of food, Lane felt that Saxby might safely stay a year in Kansu if he liked, and enjoy himself after his own fashion. The decision was a human one. It offered, perhaps, the only solution of a difficult problem. Neither could foresee what would happen. The only way to find out was to experiment, which they did. There can't be any danger," Saxby repeated. "These brutes have consumed every stick of wood within reach. They were the outposts of the army that destroyed itself last night. What can they live on if we smash them where they stand? Nothing. They'll die, half an hour after we let their blood out. But destruction in a high wind would be another matter. At least some of the spores—if you can call them that—would blow into trees before they were dead. To make everything safe for the future, you can collect an army of Chinese in Shen-si and bring them back with you to bury all the fragments under six feet of this paste. There's not an atom of silicon or a splinter of wood in it, so the disease will be buried forever. Here's where we get the better of nature. Our kind of evolution shall survive, not her antique brand that would make the silicon compounds masters, and the carbon compounds—ourselves among the rest—slaves and food for these brainless abominations."

The battle of "carbon against silicon," as Saxby called the assault of the human beings against their primeval rivals, began at twelve o'clock sharp. On returning to the camp in the fir grove, Saxby and the captain found the men roasting the sad remains of half a dozen fowls, nine pigs, and two marmots—all victims of the earthquake. The ration was inadequate for the ravenous men, but it would eke out what they carried in their knapsacks and make a forced march into Shen-si possible.

Believing in safety first, Lane organized the attack against the smallest of the crystal bergs—the one he and Saxby had inspected. If they conquered that one they would proceed to demolish its two gigantic brothers. The baby was not much taller than the tallest New York skyscraper; its brothers made it look like a pigmy.

At a quarter to twelve the marines lined up just opposite the zone which the voracious infant had licked clean of the last splinter of wood. The jagged projection shadowing the plain, three hundred feet from the ground, under which Lane and Saxby had conducted their investigation, was selected as the most vulnerable point. If that forked streak of crystal lightning could be severed at its base, it would crash against the main body in its fall and probably bring the whole huge berg crashing down in shattered crystal. Such was the mechanical theory of the attack. By chipping off chunks of the jagged root at the highest point of its thickest part, where it branched from the exposed core, the desired end would follow with éclat. It was as easy, the sergeant asserted, as shooting fish with dynamite. The captain's voice rang out.

"Are you ready? Fire!"

Most of the steel-nosed bullets made clean hits. A shower of crystal chips leaped into the sunlight; the brittle support cracked, and very slowly for a fraction of a second the huge root began to wheel inward toward the main mass. Then, with a terrific impact it struck the crystal berg at its weakest part, and the whole cracked asunder and began collapsing in a thousand cascades of glittering crystal.

The men's cheers were lost in the brittle thunder that filled the sky. So also was Saxby's warning shout. Unable to make himself heard he ploughed through the puddles and sticky mud and grasped the sergeant by the arm. By signs he conveyed his warning and the sergeant passed it on. It was a slow process, as the men were reluctant to turn their backs on a spectacle that beat a hundred Niagaras.

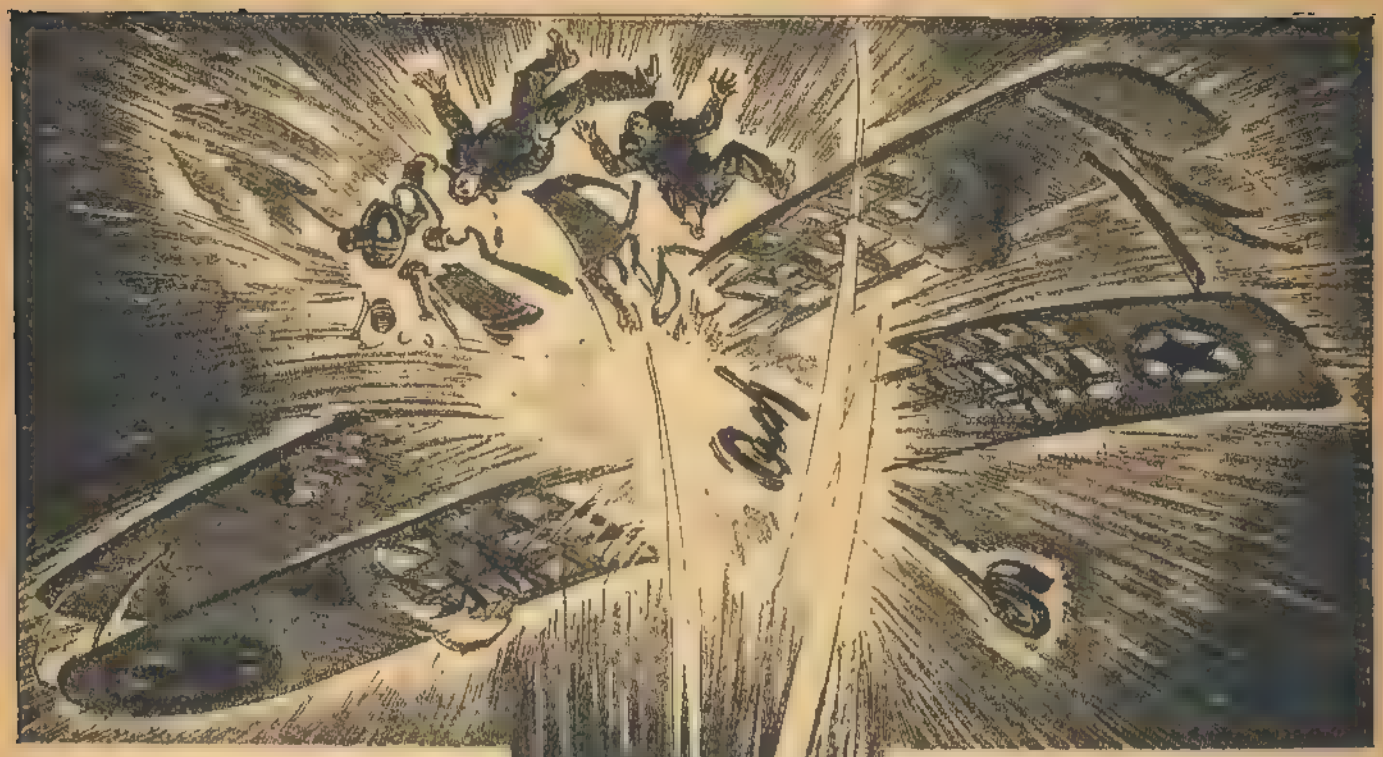
What sent the cold shivers up Saxby's back was this. He noticed as the green gas escaped from the broken crystals that it flowed down, not up. Moreover, as the sunlight played upon the gas it rapidly bleached. The hollow crystals evidently were filters for the actinic rays of the sun. Now that the sunlight played directly upon the gas, chemical changes set in, transforming it into a colorless compound. Was the new gas as heavy as the old? Was it heavier than air? If so, it would continue to stream downward, invisibly, and pile up for a moment as it fell about the crumbling base of the berg. Then, when the whole berg collapsed, the wind of its fall would shoot the colorless gas out over the plain in a huge, ever-expanding vortex. If the gas was poisonous the shattered berg would be avenged on the men who had destroyed it.

It was every man for himself. Saxby and the captain found themselves floundering in white mud up to their knees. They had stumbled into a shallow earthquake fissure which the deluge had filled with sticky slime. The premonitory puff of air, being shoved forward in a huge wave before the oncoming gas, knocked them flat on their faces in the white mess and ducked them completely. Saxby stuck his head up, wiped his eyes as best he could, and saw the captain's head just reappearing. He also saw a rabble of men trying to run. They were having about as much success as flies on fly-paper, but they had made progress. They were now bogged in one of the worst places where splintered timbers from the governor's palace protruded through the mire. Saxby found his attention riveted by one stout post, evidently part of a roof beam, which stuck up in solitary desolation between the men and the shattered berg. It was covered with a glittering crust of large scales which looked like bright green barnacles, but which were in fact young living crystals. Saxby grabbed Lane's arms and pulled them under the slime.

"Keep under, except enough to breathe with," he shouted. "It's coming!"

Lane did not see it come, as he was unable to wipe the white paste off his eyelids. Saxby did, and he regretted his ability to see. Yet he could not have closed his eyes; horror forced them open. First he saw the fur of green crystals on the post add a second coat on top of the first. What happened, of course, was that the first coat was thrust out from the decomposing wood by a more vigorous growth of crystals that absorbed the first as they grew. He remembered a third coat being laid on in a fraction of a second. Then instantly the mass attained the maximum growth and exploded into a motionless dome of green crystal, bristling like a mace, forty feet in diameter. The entire substance of the post had been devoured by the monster. Its hollow crystal cells, thin as paper yet strong as granite, were the offspring of an invisible gas breeding on the cellulose of the wood. In its explosion to maturity the brute cut one bogged man to pieces with its razor-edged knives of crystal.

What happened next was repeated until the shattered berg had achieved a complete and barren victory over its destroyers. One man, bogged to his boots in the white paste, suddenly disappeared. The invisible gas flowing over the quagmire had isolated him like an



Probably it flew too low and was cut in two by the sudden upthrust of a sword of green crystal

island in hell. Instantly the life in the gas seized upon the cotton in his uniform, devoured it, and burst into a living crystal that reached its maturity in less than a second and ceased to grow. A pillar of densely packed green crystals, ten feet in diameter and six feet high, squatted in the mire where, less than a second since, a living man had stood. The white of his naked body gleamed mistily at the core of his living tomb.

In less than ten seconds the last man was dead. The victors, except the two cowering in the mudhole, were wiped out by the fiend they had conquered. Some fell victims to the knives of the living crystals, that burst from every stick or splinter, before the gas overtook them a second or two later and crystallized their clothes, but most were entombed as was the first. That these men had come to Kansu on a mission of mercy counted for nothing with nature, whose motto seemed to be, "Who taketh the sword shall fall by the sword."

THE two survivors did not dare to venture from their mudhole till sunset. When at last Saxby decided to risk it, he managed to tear off a piece of his cotton undershirt without getting it completely smeared with white paste. This was brought to the surface in his clenched fist and hastily dropped. It was not attacked. The men crawled out of the mess that had saved their lives and reeled off toward the pass into Shen-si.

"I must report as soon as possible to General Maitland," Lane muttered. "We can do nothing here."

"No," Saxby agreed. "We made a ghastly mistake. We shall have to get back somehow to Shanghai and return with the proper weapons for destroying these infernal things."

"How can they be destroyed? Your last guess was a bad one."

"After what has happened I won't insult you by prophesying. Still, I have an idea. Stay here while I go over and look at one of these new brutes. No! Don't you come. Remember you have a family; I haven't."

Saxby's latest idea was a natural outgrowth of his previous theories. His main contentions still survived, although each successive assault of nature modified the details. These new crystals were of a different kind from any of the others. This much was obvious from their habits. They were pure cellulose feeders like the two Titans still looming undestroyed above the ruined mountains; but their contours were utterly different from those of the giants. Saxby still maintained that his initial strategy was sound. He had merely blundered in carrying it out. Before firing, the men should have stripped to the skin, and they should have burned every stick of wood in the vicinity of the bergs.

Approaching one of the squat pillars Saxby suffered a mishap

which nearly cost him his life. He learned that the living crystals were not quite so immobile as they seemed. Human beings and other animals walk by advancing their feet. The object of lifting the feet and walking is to cover distance, to move from one place to another—in short, not to be chained a prisoner to one spot. It probably has never occurred to most human beings or animals that other natural ways of breaking their bondage to space are available. Yet such an alternative escape without machines is not only feasible but also ridiculously simple. This is exactly what Saxby almost lost his life to discover.

The crystals had devoured every stick of wood in their vicinity that showed so much as a splinter through the protective paste. It was Saxby's misfortune to stumble elaborately over the submerged barrel of a Chinese rifle and kick the stock violently against one of the razor edges of the brute before him.

There is a lot of good solid wood in a rifle stock. The cutting edge of the crystal bit into its prey and instantly began to feed. Saxby was stabbed in the calf of the left leg by an evil green sword that shot from the stock. A difference in aim of a few degrees would have cut his leg off. That was the one accident that befell him; the other crystals shot away from him. Within two seconds the green devil had acquired a huge protuberance on its side that shifted its center of gravity. Then it walked.

Lane came to Saxby's rescue just as the unbalanced brute heaved slowly over in the slime to regain its equilibrium. As they floundered through the sticky mud the thing seemed to pursue them. In whichever way they turned, trying to shake it off, it followed. In horror they began to believe that it had intelligence. But, as they subsequently discovered, it had none. It was merely a blind devil that walked in spite of itself. As its keen swords of crystal swished through the slime they bit into submerged rifle butts and splintered beams. These became new masses of crystal, like tumors on the old, and again shifted the balance. Occasionally the green brute stood rocking uncertainly for a few minutes, as if undecided which way to roll, when the slight, inevitable fluctuations of the law of chance swerved some crystal knife against a submerged splinter, and immediately the new growth tipped the monster forward. It walked by toppling as it fed and grew irregularly, a pure sport of nature. Where its food chanced to lie plentifully it advanced rapidly; where sustenance was scarce it tottered; with a whole forest but ten feet away it would stand and starve till a chance storm should strew the ground before it with twigs and hurl a broken branch against its terrible knives. Then it and its voracious progeny would devour the forest.

The last hundred yards of their flight was a nightmare. Exhausted by the loss of blood from his wound, Saxby had to be dragged. He begged Lane to leave him, reminding the captain that he had a family. Lane, of course, refused. When at last they reached comparative safety Lane was all in.

"Let's rest a minute," he panted, "and see if we can't stop your leg from bleeding."

While they were binding up the wound with rags torn from their shirts they saw the last of their pursuer. In its wallowing lurch through the mire in search of food it collided with one of the squat, well balanced pillars. The impact shattered both, and their green blood gushed out in the twilight.

"Watch that stuff," Saxby whispered. "If it doesn't lose color and turn white my theory is wrecked."

Almost before he had stopped talking the green gas vanished.

"That settles it!" he exulted. "They're only a species of cellulose-feeders after all. If there were any wood around here now you'd see something."

"What about my clothes?"

"Great Scott! I clean forgot. Beat it, before the stuff spreads. Up on that higher ground!"

They spent the night marooned on a hillock of harder paste. The first few hours till the moon rose were the hardest. Gazing at the two undestroyed Titans that loomed through the fading light, and imagining the worst of the insignificant green devils their own foolhardiness had created, they sat silently dreading what the moonlight might bring forth. Was the malignant fecundity of the ruined mountains indeed exhausted? Were those crystal demons slowly starving where they stood, or were they merely waiting for their generative light to give them strength to march blindly over the plain?

The east brightened; the underside of a fleecy cloud became silver, and the first level rays of the full moon struck the highest pinnacles of the Titans. The two men held their breath and waited for the flooding light to bathe the whole infernal brood. The moon cleared the undestroyed hills, and the vast desolation, like a memory from a forgotten life, lay still as death under a cold, unearthly brilliance. Not a vestige of life stirred.

"We had better take no chances," Saxby advised, venting his relief in a prodigious sigh. "If the moonlight isn't strong enough to take the vice out of that hellish gas the sunlight may be."

"It wasn't this afternoon," Lane reminded him. "The men were killed in the blazing sunshine."

"I know," Saxby admitted. "But I believe the stuff can live only a short time in the full sunlight. The men were all killed within five minutes of our crazy attack."

"Yes," Lane argued, "but the gas stopped crystallizing things only because its food ran out. When it died there was not a stick of wood or a rag of cotton above ground. If there had been, the gas would have attacked it in short order."

"That's obvious. And like most obvious things it is obviously only half true. What happened when we crawled out of the mud to inspect? Were our clothes attacked? They were not. That disposes of your pessimism. When I kicked up that damned rifle it came into direct contact with one of the razor edges of the crystal. The crystal was still living—you saw what happened. It was the living crystal that attacked the wood, not a concealed pocket of undissipated gas. My optimism, as usual, comes out top dog. We shall walk away from here tomorrow morning as sound as a couple of bright new pennies. Then, after we get to Shanghai, we shall come back and lay those devils out for good. Your boys will be avenged. Maitland will give us whatever we ask."

"Much good it will do them," Lane responded bitterly. "They're dead."

"Could they have died better? They were not here to kill and pillage. If they are the means of ending the reign of terror quickly and forever, they will have died like soldiers."

"Do you remember what that Chinese girl told us her grandfather said? 'There shall be no killing.' I wonder if she would extend that order to cover the enemy over there? They are just as much alive as you or I, and if last night is any criterion, they can feel more pain than a woman. Why should we kill them?"

"In order that we may survive. Our kind of evolution is better than theirs."

"Sure?" Lane quizzed.

"Shut up! You're just arguing to keep awake. You think as I do. Nature blundered when she made those brutes. Take it from me, it is not mere chance that gave the carbon compounds a long lead over their competitors—these silicon and cellulose feeders among others—in the race toward evolution and a higher form of life. Whatever we may be we are less fiendish than they are. There must be something more than insane chance behind it all."

"What, for instance?"

"Oh, shut up! How the devil should I know?"

"I think you may have said it," Lane chuckled. "Just one more question. How do you propose to demolish our fellow creatures over there?"

"No bragging till we do it. We may never beat them. Still, I think there is rather more than a hint in a fine line I remember from one of the poets—who wrote it I forget:

"'A stone is hurled; the giant falls.' Now, for Heaven's sake shut up and let me try to get some sleep. This has been a hell of a day."

While they slept, dreaming of victory, the enemy marched in triumph over the battlefield, hundreds of miles to the east, which two human enemies had consecrated with their futile bloodshed. Nature was showing those who could still see what war is. It beggared their best.

CHAPTER XIV

Victory

MARKOFF'S resurrection accomplished at least one good thing. When the survivors on the battlefield saw what was upon them, they temporarily forgot the distinction between ally and enemy. They became merely human beings in a panic to escape.

It chanced that exactly two of the motor trucks that had been hauling quicklime to the battlefield remained intact when the armies ran out of ammunition. The rest were destroyed by inefficient artillery fire and exploding shell dumps. One of these, packed with thirty-five officers and men from both armies, succeeded in getting away. The other was cut to pieces with its cargo, because not one of the soldiers swarming over it knew how to start it. Disregarding the frenzied appeals of the men running after the luckier truck, the officer at the wheel stepped on the gas and headed for Shanghai. He could not possibly have carried another man. Looking back the refugees saw enough to make them yell for more speed. They got it; two of the thirty-five men were jolted overboard. Twenty minutes later the thirty-three in the truck might have boasted that they were the sole survivors of the battle.

One ludicrous incident of that retreat merits immortality. Fifty miles west of Shanghai the thirty-three in the truck began wrangling bitterly over who had won the battle—the army of General X or the opposing army of General Y. Unfortunately the debate could not be decided by single combat between the generals, as it was General X who saw the first sword of crystal flash from the grave, and General Y was slain by a similar sword while attempting to board the truck which stayed behind. The driver of the lucky truck was a major in the late army of General X. Being an intelligent man he used his eyes—it was moonlight, and he had halted the truck to facilitate debate. He immediately saw a fair way of settling the dispute. As the men had flung away their arms on quitting the field of honor, the major's proposal struck them as being both just and practical. Moreover it was seasoned with a spice of chance, and if there is one thing that a Chinese cannot resist it is a fair opportunity to gamble. They agreed to count noses, or rather uniforms.

The soldiers wearing the uniforms of General X squeezed over to one side of the truck, those of General Y to the other. All agreed to abide by the decision of arithmetic, the losers to become prisoners of the winners. The major, acting as referee, did the counting. There were exactly sixteen on each side, till he cast the deciding vote in favor of General X and won the battle by a majority of one.

The victory was extremely fortunate for the losers as well as the winners, as Shanghai was the great headquarters of the winners' side. It would have been awkward, to say the least, to be forced to take one's prisoners through their own territory. The late General Y's great headquarters were in Manchuria. If it did nothing else, this incident demonstrated the blithe courage of the Chinese soldier in the face of overwhelming natural odds against him. It also earned the major his promotion to the rank of colonel. He had won the battle.

The truck made good time, as the roads had recently been re-ballasted to hasten the transport of disinfectants to the battlefield. At a quarter past four the following morning it delivered its sixteen prisoners of war to the guard at great headquarters. By six o'clock every Chinese in Shanghai was celebrating the victory. General Y's sixth army, the adherents of General X were informed, had been totally destroyed except for sixteen prisoners. This was, of course, the literal truth—so far as it went.

While Shanghai as a whole celebrated with squealing bands and sputtering firecrackers, the staff officers at Great Headquarters were patiently trying to get at the facts. All thirty-three survivors were being grilled. The one credible detail in their singularly concordant testimony was the story of the bombing plane which precipitated the battle. For the first time the survivors of each side learned that the plane did not belong to their enemies. It was not the property of either General X or General Y. Therefore, the staff officers concluded rather unreasonably, the whole battle was a stupid blunder. The incomprehensible tales of huge crystal devils suddenly leaping out of the ground and racing over the battlefield with swords that slashed like razors, and the equally fantastic accounts of the the devils fighting among themselves till they smashed one another to nothing, were dismissed as the fevered fancies of men who had lived for weeks in constant peril of death by gas, flames, bombs, bullets, shells, bayonets and the bubonic plague. The witnesses, protesting like magpies, were hustled off to the pest house.

With the chattering thirty-three disposed of, the staff officers quickly solved the problem of the bombing plane. The chief of the intelligence department, after consulting his records, made a probable guess in three minutes. The only foreign plane within five hundred miles of Shanghai that had been granted a permit to fly at any time during the past two weeks was an American bombing plane. Permission was granted at General Maitland's request for the plane to fly with one passenger, Dr. Saxby, to the Christian missions in Kansu. General Maitland made the request, he declared at the time, because he had learned through private sources that the mission stations were threatened with an epidemic of typhoid. Dr. Saxby wished to fly to Kansu with a supply of antitoxin. As a matter of course the Chinese granted the request—not that they believed General Maitland for an instant. The story of Saxby's flight over the Chinese lines, and the

humane conduct of the Chinese in permitting the flight, would win all the sentimentalists in America to their side at one swoop, and it wouldn't cost a soy bean. They didn't give a damn what Saxby might be up to in Kansu. The staff officers had perfect confidence in their friend the governor.

It was with a smile of regretful satisfaction that the chief of staff now called General Maitland on the telephone and informed him that his bombing plane had met with a serious accident while flying over the trenches of General X. Was anyone injured? Yes, unfortunately; the chief feared that all in the plane had lost their lives. It fell from a great height. The cause of the accident? It was impossible to say. Several soldiers, on sick leave from the victorious army of General X, agreed in reporting that the gasoline tanks must have exploded. The plane suddenly burst into flame and crashed from a height of two thousand feet—some said three thousand. The chief of staff tendered his personal condolences and those of his entire army. He trusted that General Maitland would convey these to the people of America. The accident was but the more tragic in that Dr. Saxby perished in the cause of mercy and humanity.

"Amen!" said General Maitland, banging the receiver back on the hook. "And to think that we sold those damned Chinamen their anti-aircraft guns."

"What are you going to do about it?" his aide asked cynically.

"Do? Watch me and you'll see."

HE reached for the private telephone connecting him with the American Air Force in Shanghai. Five minutes later fifty of the fastest bombing planes in the world were roaring over the city on their way to Teng-shan. They were under orders to support Captain Lane and to keep in constant touch with General Maitland by wireless. If necessary they were to cruise back and forth until Lane and the rescued missionaries were safely escorted through the Chinese lines to Shanghai. And further, at the first hostile demonstration from the Chinese, the latter were to have hell bombed out of them and be raked with machine gun fire from above.

"I guess that's plain enough for our Chinese friends and sympathizers," the general remarked to his aide.

"The planes won't be allowed to carry their wireless, you know," the aide archly reminded him.

"Like hell they won't," the general snapped. "If anything happens—no matter what—I'll return the Chinese staff's 'regrets' with thanks."

General Maitland was an impulsive, excitable man. He lacked the great Papa Joffre's ability to sleep ten hours a day while the fate of his army was up in the air. Maitland should never have been made a general. He lived with his men, even when they were fighting a hundred and fifty miles away. As the quarter hours dragged by, the general fought hundreds of imaginary battles with the men in his bombing planes, sometimes achieving brilliant victories, but more frequently suffering the humiliation of disastrous defeats. Why the devil didn't they send him some message? Their orders were explicit, and they surely knew him well enough to realize the penalty for disobedience. They were to keep in constant touch with headquarters by wireless. Why didn't they? The aide stood silently by, as uneasy as his chief.

At last, an hour and twenty minutes after the planes started, the telephone bell jingled. It was a message from the wireless station. The general brushed his aide aside and snatched the telephone.

"General Maitland talking, yes?"

"The colonel wants to send a man back, sir."

"What for? He's got his orders! Send him this—."

"The message says he has sent one plane back to report."

"Report what? Speak up! I can't hear."

"The colonel says he has seen something this side of the battlefield you should know about."

"What has he seen?"

"The message didn't say. The colonel thinks you should know—"

"Yes?"

"I'm sorry, sir. We lost the rest of the message. The static is quite bad."

The general's jaw set. He anticipated the worst.

"Those damned Chinese are firing on them and bringing them down like partridges."

Till the unauthorized courier from the bombers arrived, the general held himself as tense as a steel spring. The aide wisely held his tongue. This was no time for fatuously making the best of things. Maitland brooded in silence. His impetuosity, he imagined, had precipitated a stupid disaster. What could he tell Congress to pacify it for the loss of fifty of its pet bombing planes? Probably nothing. They would insist that he be demoted and disgraced. Their spiteful anger would hit him alone, for he was responsible for the great "air program"; it was his sensational disclosures that had caused the inspired press to howl for planes, more planes, and yet more planes. And now that the country had given him his precious planes, what had he done with them? Sent fifty of the finest to a certain scrap-heap death. Worse, fifty of the bravest air crews of the world had probably perished with their planes. It never occurred to the general that the courier might be returning to report a devastating victory. Having acted in haste, he could only repent.

When at last the pilot of the returned bomber entered the general's office, Maitland rose slowly, white-faced and silent.

"What has happened?" he asked.

"We don't know," the pilot replied. His face was a greenish white.

"Where are the other planes?"

"Half way to Teng-shan by now."

The general made an instant recovery. He was himself, cold, precise and shrewd.

"Then why aren't you with them?"

The pilot took his life in his hands. He looked his very superior officer in the eye, spread his legs wide apart, jammed his muscular fists against his belt, and deliberately spat on the Chinese carpet directly in front of the general's feet. Maitland eyed him curiously, but said nothing. It was not the first time he had seen a man crack and reveal his true color under the stress of war.

"General Maitland," the pilot retorted coolly, "this is no time for military etiquette. I've got to do something drastic to make you notice me." The general was noticing. "Courtmartial me if you like after the fight. But the fight ahead of us won't be with the Chinese. Their war is over—at least for a year or two. How can I make you understand?" The general nodded encouragement.

"Their armies aren't there any more," the pilot continued. "We flew all over their bloody battlefield. They've been wiped clean out. And we saw what did it. They're still at it—coming this way. Toward Shanghai. Are you following me? They're rolling over forests and rivers and villages like a flock of crazy steam rollers, getting bigger with every yard they make. And they leave nothing—absolutely nothing—

behind them. Like a fool I dropped a bomb on one of the biggest of the green devils just as it rolled into a village. I hit it, all right. It smashed to nothing. Before the dust settled there were fifty new ones, just as big as the first, rolling away from it. Now, you've got to think up a way of stopping them before they roll in on Shanghai."

The general sidled to his desk and unobtrusively pressed a button.

"What do you think they are?" he asked suavely.

"Something the Chinese have invented—some new kind of tank, or a new sort of gas that turns solid and grows in the air when it bursts from the shell. I don't know. But I guess whatever the things are, they can't stop them. Can we? Some of them are the size of five city blocks and taller than skyscrapers."

"I think we can," the general replied soothingly, keeping an eye on the door, "no matter how big they are. The colonel sent your plane back alone?"

"Yes. He wanted to turn the whole flock back."

"Why didn't he?"

"Well, he said you're hardboiled, and would court-martial the lot of us for disobeying orders if he did. I volunteered to come back alone. I know you can stop them!"

"You weren't afraid of me, were you?" The general laughed boyishly, like the good fellow he was at bottom—when he wasn't nervous.

"Nor of any other soldier," the pilot retorted. "I've seen what's going to happen to us. These new things put all our equipment out of date. Better warn everybody to take to the water."

The door opened and two tough-looking orderlies entered.

"Arrest this man and take him to the hospital. He's crazy," the general snapped. "He is under arrest till further orders."

At the door the prisoner looked back and laughed.

"The colonel bet me a month's pay you would court-martial me. Do I win or lose? It's all the same to me. But get the civilians out of the city!"

THE aide's insight into human nature was much sharper than the general's. Otherwise he could never have been an aide. The pilot's report, fantastic though it was, somehow had a ring of truth.

"Why not send out a scout plane," he suggested, "to see what has really happened to those armies?"

The general pondered this plan in silence.

"The pilot was drunk, or crazy, or both. That's what we get by taking the riffraff of the colleges into the service. A West Point man doesn't go yellow the first time he sees a little blood."

The aide discreetly held his tongue. Presently the general made up his mind. He telephoned an order to the air force. In two minutes the scout plane was on its way. It never came back, and to this day its fate is not known. Probably it flew too low and was cut in two by the sudden upthrust of a sword of green crystal. Its continued absence, hour after tenser hour, again grew unendurable. Maitland hazarded the guess that the Chinese had shot it down. On calling up the Chinese chief of staff about three o'clock that afternoon to protest, the aide received a polite assurance that if a mistake had been made by the anti-aircraft gunners the staff would indemnify the United States.

The Chinese staff saw no reason for telling the Americans that their army could not have shot down the scout for the simple reason that General Y had annihilated the forces of General X, and conversely. Not believing the green-devil yarns of the survivors, the Chinese staff concluded that the scout plane had foolishly crashed into a tree. The bewildered staff itself was waiting for solid information. Before the fifty bombers left for Teng-shan, Chinese intelligence officers were on their way to the battlefield to learn exactly how badly their side was cut up. But they did not confide their anxieties to General Maitland's sympathetic ear. They waited a long time for their information. The intelligence officers never reported.

Between four and five o'clock that afternoon two footsore and weary men halted midway on the pass from Kansu to Shen-si and sat down to rest before limping on to find a village. Lane scarcely recognized the pass as that down which he and his column had hastened to the rescue of the missionaries. This spur of the mountains was merely shattered by the earthquake, not burst asunder and strewn over the plain as was the range of limestone caverns. Yet even here there was abundant evidence of what nature can do when irritated. And far to the west, gleaming in the sun, two turreted and pinnacled bergs of crystal flashed like cities of emeralds and diamonds above the white wilderness of an utter desolation, which they and their progenitors had created.

"How on earth are we ever going to destroy those monsters?" Lane asked.

"I won't prophesy," Saxby replied, "but I think it will be easy. We must choose a day when the air is perfectly calm. This evening would be ideal. Hark! Do you hear what I do?"

They listened intently to a sound that was not yet audible, feeling rather than hearing it. A distant hum began to drone on the air far to the east.

"Planes!" Lane exclaimed, springing to his feet. "Good old Maitland guessed we were hard pressed from what your pilot told him. Do you see them yet?"

"No. But we shall in a minute." Saxby was frantically collecting sticks and leaves. "They've got to see us. Lend me your revolver. My matches were all ruined in that mudhole."

Before the forty-nine bombers pricked the sky like a fleet of midgets flying in battle formation, the men had a thick pillar of white smoke streaming up in the motionless air. As the midgets grew rapidly from mosquitoes to wasps, then to droning hornets, and finally to a roaring flock of low-flying battle cruisers, the men fanned the smoke with their coats to attract the aviators' attention. They were seen; the fleet shot over them, wheeled, turned again and dived in search of a landing place far down the slope. The one that came down nearest the pass was about three miles away; the farthest fifteen. What looked like smooth ground from above turned out to be either a sticky quagmire or a trap of earthquake fissures. The fleet scattered when it saw what was beneath it. Each pilot was now on his own in spite of the general order to stick together.

Saxby and the captain met the first pilot a little better than half way down the slope.

"What's been happening here?" the pilot bawled.

"Earthquake," Saxby shouted.

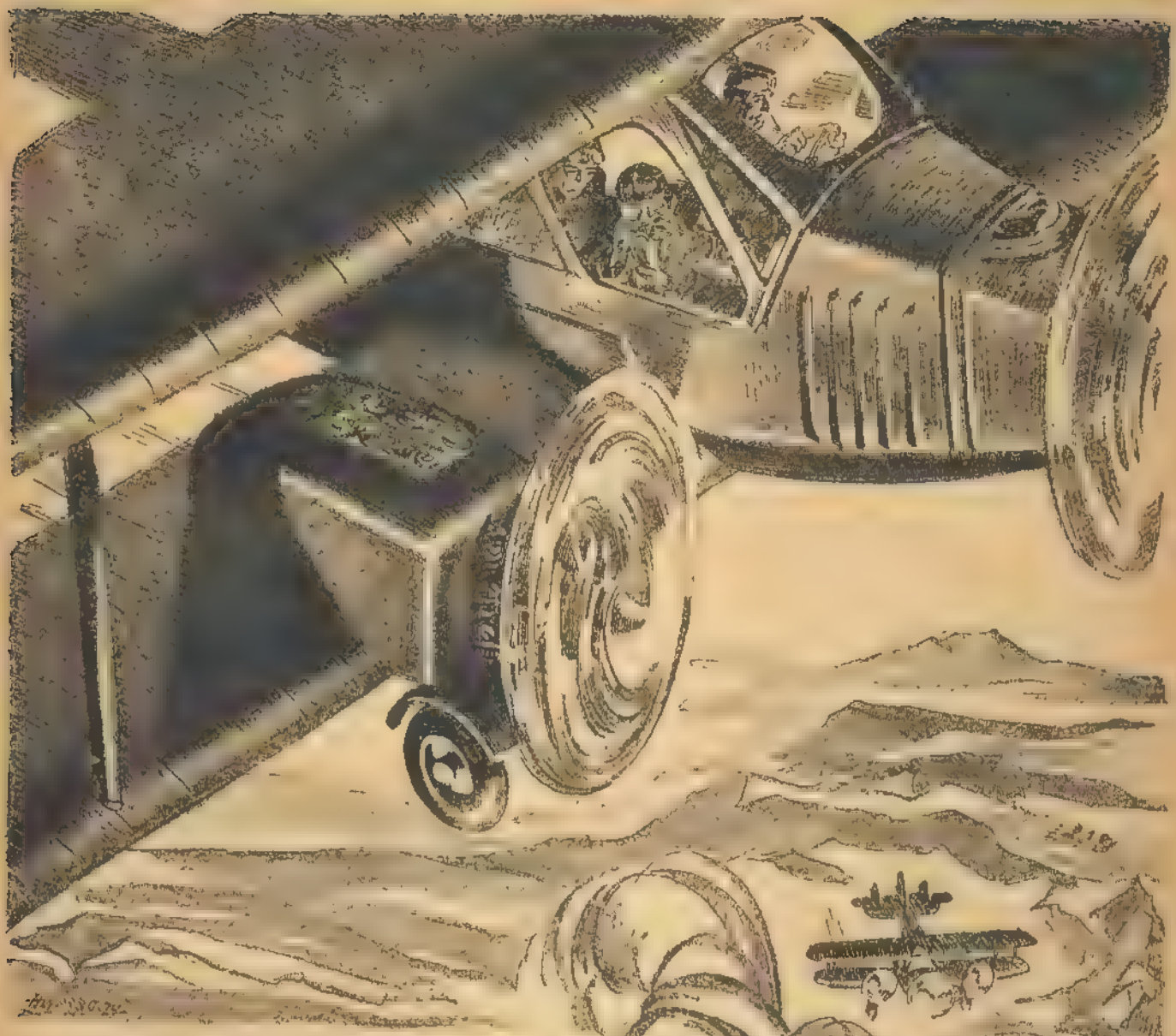
No further remarks were exchanged till the panting man joined them.

"Earthquake," he puffed, "be damned. I meant what are those green things like icebergs standing up out there?"

"A new kind of crystal," Saxby informed him, thinking the indefinite reply sufficient for the moment. To his astonishment the man asked if they were alive.

"Yes. How did you guess?"

"I didn't."



Saxby, peering down through his field glasses, saw the green ring shoot out from the shattered base and spin over the plain

"You have seen them before?"

"Not these. Others just like them. Much bigger."

"Where?" Saxby demanded.

"About a hundred and thirty miles east of Shanghai. Hundreds of them. They were walking all over the woods and trampling down villages like match-boxes. Headed for Shanghai is my guess. Know any thing about them?"

"Lots," Lane cut in. "General Maitland ordered you fellows to come and fetch us?"

"Just about."

"Well, we two are the lot. The rest of my outfit was killed in the earthquake and by what happened afterwards. Maitland sent forty-eight planes too many."

"Our orders were to support you. What's first? Here's the boss coming up the slope now."

"The pilot I sent back," Saxby resumed, "told General Maitland what happened here?"

"No. I guess it must have been your pilot that was shot down by the Chinks a hundred and fifty miles west of Shanghai. Ask the boss?"

SAXBY guessed the whole story without asking. Details were of no moment. The commander briefly confirmed the pilot's account of the march of the living crystals toward Shanghai.

"One of our crowd flew back to warn the general of what was coming. The man bombed one and made things worse than ever—fifty at least took its place."

"Why didn't you all turn back?" Lane demanded.

"Orders. You know how touchy and how bullheaded Maitland is. Well, where do we go from here?"

"Ask Mr. Saxby. I don't know."

"Shall we take orders from him?"

"Yes. If anyone knows he does. If he doesn't know we may as well fly on as long as the gas lasts. What's first, Saxby?"

"Drop bombs from five thousand feet on those two bergs out there. I'll go up with the pilot. The outcome of our shots will determine what is to be done next. By the way, have you an extra coat with you?"

"You'll be warm enough as you are."

"I guess not," Saxby retorted, stripping his coat and shirt off. "Give me your clothes, Lane. Come on, all of them! I'll drop them when the pilot drops the bombs."

"What's the idea?" the commander asked.

"Plague of some sort," Saxby explained sufficiently. "Our clothes may be infected. You will have to dig up spares for us from your men. We can crawl into the insides of our planes and keep warm somehow." He turned to Lane. "If I have an accident, you tell the rest what happened. Watch the effect of our shots. If they turn out O. K.—you know what I mean—fly back to Shanghai at once. Wait half an hour for all the gas to disperse. When you see Maitland tell him to do this."

He gave the captain the necessary brief instructions and followed the commander down to the plane.

"You can signal somehow to your men?" he asked. The commander replied that they could receive radio messages from his own plane, and Saxby continued. "Then order them to get a thousand feet above the ground and fly around until we finish. Tell them to take their orders from Lane if we come a cropper."

The commander included in his general order a special one for ten of his men to contribute toward clothing the captain while he and Saxby were up. They were to drop their duds from the air. Before the plane took off, Saxby removed his boots and socks, wadded them up with his clothes, and included them with the captain's in the bundle of discards. He then borrowed the pilot's leather coat and wrapped it, leather side in, around the possibly infected clothes. The mechanician donated an outer coat, the commander a sweater, and Saxby crawled in where it was warm. They were off like a rocket.

"Up as fast as it will climb," Saxby bawled in the pilot's ear. We must have at least a half an hour of sunshine after the shots. Lend me your glasses."

The desolation beneath them seemed to flatten out at the centre and rise like a vast bowl toward the horizon. At the bottom of the bowl two glittering jewels flashed and sparkled in the sun. Saxby crawled out of his refuge and dropped the bundle of clothes. Then he shook the commander's shoulder and nodded. The plane circled slowly above its mark and laid a big black egg.

The men in the wheeling planes four thousand feet below the attackers let out a shout of involuntary joy at the sheer beauty of the spectacle; a peak of pure crystal burst into a cloud of flashing emerald and diamond and showered down on the plain in a scintillating rain. Saxby, peering down through his field glasses, saw the green ring shoot out from the shattered base and spin over the plain. Before it had traveled two miles, it was bleached colorless. In its wake, and for five miles after it became invisible, an army of green pillars leapt from the ground as the gas spread over half submerged splinters from the ruins of the suburbs of Teng-shan and farm-houses. Then, suddenly, as if a gigantic sword in one circling swish had severed the rushing vortex and cut it clean out of space, the invisible gas ceased to devour its prey. Less than twenty feet beyond the outmost pillar of crystal, uprooted trees remained mere uprooted trees. Either the sticks already devoured and transformed to living crystals had absorbed all the gas as it rushed past, like a charcoal filter on common gases, or the continued action of the dying sunlight had destroyed the baleful vitality of the shattered crystal.

"We know how to kill them!" Saxby shouted. "Now for the biggest devil of them all!"

In four minutes the monarch of the wilderness was a ruin. There remained only three rings of squat green pillars to be destroyed. Bombing them would take too long. By radio the air fleet was ordered to fly low and rake them with machine-gun fire.

As the sun set, the last low dome of green crystal burst into a shower of fragments and vanished. No progeny sprang from this brood. By letting out the life-blood of the giants first, Saxby had robbed the lesser devils of the food by which they might have lived again and bred.

The victors rose from the strangest battlefield in history and soared over the pass in battle formation to consolidate their victory.

CHAPTER XV

Shopping

HOURS before the returning planes swooped down upon Shanghai to refuel for the conflict, the grand offensive against the living crystals was well launched. Shortly after the fleet soared over the pass into Shen-si the sun set, atmospheric conditions instantly improved, and radio communication with American headquarters in Shanghai became possible. From that moment to the last minute before they landed, the fleet was in constant communication with General Maitland and Admiral Bligh, in command of the battleships in the harbor.

The unanimous testimony of ninety-eight trained experts—the pilots and mechanicians of the bombing planes—was not to be disregarded or pooh-poohed as the sudden evidence of a yellow streak. If General Maitland did not credit the first or the second message from the returning planes, he was forced to believe the twenty-second. They were all so curiously similar, so consistent in an insane way, that the general broke into a profuse perspiration. When to the unanimous testimony of the fliers was added a brief account—by radio—of what Saxby and Lane had seen, with the fact, thrown in for good measure, that the major part of Lane's troops had been wiped out by the living crystals, the truth at last percolated through the general's hardboiled skepticism. Messages began to flicker back and forth through the twilight.

"Do this, do that," was the tenor of Saxby's curt sparks: "What shall we do next?" that of the general's. Among the orders which Maitland executed like a lamb was a forcible command that he cooperate immediately with the Chinese staffs—of all factions—and with all British, French and other foreign legions within two hundred miles of Shanghai, also with the fleets of all powers.

Like many soldiers of the higher ranks, general

Maitland hated that word "cooperate." It always seemed to mean "play the second fiddle, or, if you don't like that, try a tin whistle." Before nine o'clock that evening he was cooperating with Chinese, French, and British at such a high pitch of proficiency that he threatened soon to beat the band. By ten o'clock he had induced all of the oil corporations in China to cooperate with the Chinese and foreign forces to the full limit of their resources. In fact, failing to meet with as prompt and as hearty a response as he had anticipated half an hour earlier, he confiscated their property at one swoop, justifying his high-handed action by that rude phrase "military necessity."

By ten fifteen all the oil trucks within two hundred miles of Shanghai, loaded to capacity, were headed full speed for the battlefield. The hint that any reluctant cooperator might find his tanks bombed in the morning, if his trucks failed to start as ordered, may have had something to do with the remarkable demonstration of efficiency. With a pressing, real job in front of him, Maitland forgot his nerves and showed what he was made of.

Scout planes, swifter than swallows, skimmed through the night to spy out the enemy and report by radio his latest advances. At eleven o'clock it was learned that the nearest of the oncoming green devils was toppling and trundling toward Shanghai over a village less than sixty miles from the city. The main army of crystal giants was some ten miles further back, advancing on a two-hundred-mile front. Behind them, glittering for mile after mile in the moonlight, stretched broad bands of sheer desolation populated by squat domes and pillars of stationary, living crystal. Flying further west to the human battlefield where the monsters first seized life, the scouts reported in response to a request from Saxby, relayed by Maitland, that the battlefield for miles was a gleaming lake of white mud densely packed with regiments of low domes and stunted pillars. Evidently here, as in Kansu, the lightning growth of the bisexual crystals, with the purple and green bloods, had been attended by strong electrical discharges. The vast uprush of electricity had induced the storm which here, as in Kansu, had severed the purple from the green—or male from female; the males had perished, completely sterilized, in the sunlight, while the females with the green blood had devoured every stick and cotton rag on the battlefield. Then, sinking in the mire they had found fresh food, consumed it, "walked" and toppled from the battlefield, which sloped toward Shanghai, to trundle over woods and villages, breeding a new race independently of the males.

Wherever one of the blind brutes blundered into an obstruction of stone or metal it was instantly shattered, and its yet living blood bathed every fragment of wood in the vicinity with malignant life; from the death of the mother sprang a whole brood of monsters as prolific as she. Where the food was sparse—here and there a few sticks or a handful of straw—the living crystals rooted where they stood, or toppled aimlessly but a few yards to come to equilibrium. Those that ceased to grow were doomed to stand indefinitely, consumed by their own hunger, till some chance wind might blow them a twig or a straw, and possibly start them walking and growing explosively for miles.

If ever an army marched on its belly, this one did. The accident of an exposed root frequently determined the impact of an entire campaign, and more than once the headlong rush of a whole toppling battalion of monsters, any one of which might have crushed a village in its forward lurchings, was halted in abrupt starvation by a strip of gravel two yards wide at the bottom of a dry river bed. Occasionally one of a host thus suddenly stopped would be urged forward once more by the settling of a single handful of gravel beneath it, and in half an hour the fair countryside beyond the immobile army would be ravaged and as desolate as the territory it had conquered.

WITH sublime impartiality blind nature did not always destroy. To her the life of plant, animal or man, and all their laboriously acquired wealth of age-old habits that had fitted them to survive—their beauty, their cunning, their poor treasures—were nothing. In her supreme indifference to them and their fate she stumbled like a drunken imbecile all about them, utterly careless whether she destroyed or did not destroy. The accident of where chance had thrown the food for her latest brutes alone determined her course, and for these youngest and yet most ancient of all living things she had neither hatred nor shadow nor mercy. To her it was the same whether she led them to plenty in the destruction of the works of her other spawns, or abandoned them to dumb anguish on the barren stones. She who could not feel let her creatures suffer for her. She was neither their friend nor their enemy, merely their creator.

It was decided to make a stand on a two-hundred-mile front fifty miles west of Shanghai. By drawing in the lines so close to the city, Maitland and those cooperating with him hoped to have ample time for the deployment of the effective fighting force on the human side. Between this line and the nearest enemy lay a band now less than ten miles wide of thickly settled, heavily wooded, rolling hills and farm lands. Immediately after the oil trucks were despatched, vast quantities of war material of practically all kinds began streaming along all but two of the available roads and railroads toward the front. Tanks trundled and clanked in the van, or clattered along short cuts to the battlefield, crashing fences and farmyards, shanties and pigstys with a serene disregard of everything but haste. The crews inside these rattling fortresses gave such of the terrified Chinese farmers as saw them the scare of their lives. Except for their leather shoes the men were stark naked. These were the shock troops until the bombing planes should arrive.

The first to reach no man's land were the oil trucks and their supporting troops—Chinese regulars, French and British sailors from the battleships, and American marines. By two o'clock in the morning the counter-attack of the human beings was well launched. A front twenty miles long burst into billowing red flames, and huge, tumbling clouds of velvety soot rolled skyward, blotting out the stars and the moon. The empty oil trucks were already bumping back at top speed along the two open roads to the bases of supplies. Farms, villages and woods, drenched in oil, flared up in one thundering conflagration. The wind rose with outraged violence, hurled itself upon the bellying flames, and swept them volleying back over the enemy's territory. As attack after attack opened along the two-hundred-mile front, the sooty sky flickered and throbbed with dull crimson, till the astonished ships, a hundred miles at sea, thought they were witnessing the Armageddon of all Asia. Where the oil failed, incendiary shells burst and rained down fire; the surging groan of the bombardment rose and fell monotonously over the seaports, getting the timid out of their beds in the cheerless dawn to flee from an imagined invitation of Mongols.

As dawn turned the murky air to the color of dry blood, the returning planes roared over the battlefield on their way to Shanghai, and the first of the tanks clattered into action. Withering flames had bleached the vanguard of the advancing hordes, but had not killed the life in their green cores. As far as the human fighters could see, and towering above the horizon where

they had been halted by the starvation, colossal bergs of crystal loomed through the dun air as motionless as an army of Gibraltars.

The crews of the tanks donned their gas masks and charged across the devastated strip in their clattering fortresses. The first was within a hundred yards of crashing its berg when one of the returning planes veered, roared back to the battlefield, swooped almost to the ground in front of the tank to attract the attention of the crew, and circled it three times before landing. The signal was sufficient; the tank men were not without brains. They brought their clanking monsters to an instant halt.

"Don't attack till the sun is well up!" Saxby shouted, tumbling out of the bomber. "I know what I'm talking about. The wave of gas from a brute the size of this one will travel five miles. Unless there is full sunlight to sterilize the gas before it reaches the edge of the burned area, you men will start the war all over again."

"All right," a voice shouted.

"All right, is it? What's that gas mask of yours made of? There's canvas in it, isn't there?"

The man sheepishly admitted that there was.

"Your attack is off, young man," Saxby snorted. "Hasn't any man at your headquarters a brain in his head? I told you *no cotton, no cellulose.* You got our messages, I know, because you repeated them by radio."

"Can't we try it if we leave these masks behind?"

"That's up to you. The gas may not be poisonous in the usual way."

"Do you think it is?"

"No. It passed over my head; I breathed it by the cubic yard, and I rather liked it. Send a man out of each tank back with the masks, and then you can have your fun. You can't start for an hour yet, anyway. And it won't be fun when you do start."

When the cheer which hailed this verdict died, old Saxby's face was a study of disillusioned pessimism.

"Ten dollars to five cents your rattletrap is stuffed with cotton waste. What do you wipe your machinery with?"

They were guilty. Old Saxby became eloquent on the subject of military efficiency.

"If every wisp of cotton is not out of your tanks before you attack," he concluded sourly, "they will swell up suddenly and burst like glass bombs. And you'll be inside the glass like flies in amber. Good-bye; I'll see you later—if you use common sense. If not, you are just as well crystallized."

Two hours later, as a reward for their fine night march, the tanks were given the honor of starting the grand assault. In full sunlight, on a front of twenty miles, the ungainly tanks hurled themselves upon the motionless enemy. The air was filled with the brittle din of their ruin, and the minds of the attacking army with the mute agony of their enemies' death.

Half an hour later the entire fleet of planes, refueled and carrying all the ammunition they could lift, soared out over the vast territory conquered by the living crystals.

All that day, all the following day and into the late afternoon, while blazing oil inundated the bays of the battlefield, the planes bombed the huge bergs that stood motionless to receive their death, and raked the standing regiments of crystal pillars and squat, evil domes with machine-gun fire. As the slaughter of the helpless offspring of a blind chance increased to its peak, the fliers tried to forget that they had nerves and to remember only that if one kind of life is to survive, another must perish.

The indefinable sense of agony was no illusion. In distant cities, where the rumor of the battle had not yet penetrated, the inhabitants eyed one another suspiciously, apprehensive that their neighbors carried the strange new plague which, they could swear, was feeling with a hand of ice for the marrows of their own bones. Those who had the means stupefied themselves with opium.

Only when the sun set on the final day of the battle, and the last green dome of living crystal gave up the crushed thing at its heart, did the echo of that distant pain from a forgotten age become a memory.

* * * *

ABOUT ten months later, Isabel took Tom shopping on a Saturday afternoon. He was to receive a real rabbit—a live one—to solace him for his great loss. For his mother had suddenly announced that a boy of five should put such childish things as Easter eggs behind him forever. Worse, appeal to his father, carried over his mother's head, had but confirmed the stern decision.

"Is it because of what happened to Hoot with that green egg last year?" Tom persisted as they entered the entrancing shop where guinea-pigs, young bulldogs, kittens, canaries and horned toads were sold.

"I thought you promised me to forget all about Hoot and that green egg," his mother reminded him.

Tom was floored. Diplomacy came to his rescue.

"I can't forget Hoot," he said.

Sorrow for the forbidden eggs vanished in the resplendent vision of an enormous black rabbit with a long face as decorously mournful as a prosperous bishop's.

While Tom was concluding his purchase of the Bishop—Isabel christened him on the spot—old Saxby was on a shopping tour of his own in a romantic quarter of the city not far from the railway station. He was to have Easter breakfast with the Lanes, and he wished to take them some small gift, also to get some decoration for his earthquake cabinets. A flower shop, its windows jammed with waxy Easter lilies swathed in green oiled paper at a dollar a blossom, caught his eye for a moment, but he passed on.

Passing a news-stand he unconsciously took in the headlines, but did not stop. Presently, what he had read registered on his absent mind, and he turned back.

HERO BOMBS TWO HUNDRED

the headline yelled. Old Saxby bought a paper, and read how one man in a bombing plane had killed, with a single bomb, two hundred Nicaraguan rebels who were about to slaughter a handful of American marines. He dropped the paper into the nearest "Help Keep Our City Clean" can, wiped his hands, and marched into a small grocery store.

"Give me two packages of dyes for Easter eggs," he said to the clerk. "One blue and one yellow."

He put down ten cents, slipped the packages into his pocket, and started for the interurban station, his shopping forgotten.

The problem in his mind absorbed him. Was it by more than a sheer accident that Yang succeeded in concocting the specific compound that caused silicon dioxide to take on at least the semblance of life? Almost certainly not. Yet, of all the billions of unstable compounds existing for infinitesimal fractions of a second in the almost instantaneous rush to stability, only a few, perhaps only one, under the exact conditions necessary, had the power of making silicon colloids self-perpetuating and self-feeding. What was the probability of hitting this one chance. Practically nil, unless one had genius to read the slight variations of innumerable failures, and from their mazes discern the one, infinitely crooked, path to the hidden goal.

Yang had had such genius. Saxby knew that he himself lacked it. Yet, if he were lucky, he might stumble upon the fortunate combination of circumstances before he died. With reasonable care of his health he might live to be a hundred. That would give him nearly forty years. But what if, after all, it was not the green dye that was the essential "priming" of the explosion, but some rarer accident? Isabel told him the first afternoon they talked together that the waterglass which she had thrown away was foul with milk blue spots and was "stringy." Were those evil threads and blue spots the secret principle of the life in the living crystals? If so, how many millions of years must elapse before chance would again turn up the lucky number which called them into being? In the absence of luck in either event—green dye or stringy waterglass—it might well be millions of millions of years before another crystal relearned the forgotten secret of life.

This much he saw by the simple rules of arithmetic and the iron laws of chance, laws less flexible than any ever devised by man. Yet, he might live forty years, and in one year thousands of routine experiments can be carried out. Only one need be the lucky one.

Mathematics does not tell us everything. Saxby realized this. The rest of his problem was the hardest, and here arithmetic failed him. Which way was better? The present order of nature, where the finest flower of evolution dies or inflicts death to be free to grow, or the older order, where brute killed brute blindly, without purpose and without the sanction of reason. Was either way better than the other? What had ethics to do with a problem that was a mere puzzle in the laws of chance? How escape it? Was not a revolution to achieve liberty and a less brutish life—the sort of thing these wretched Nicaraguans were always pulling off—a contradiction in itself?

"At any rate," Saxby muttered to a helpless lamp-post, "those crystals didn't say they were killing one another for the victims' good. Fundamentally they were lesser humbugs than we are. Red-blooded men; blue blood; fists across the sea; green-blooded crystals; true blood; which shall it be? I'll try for the green! Forty years . . . I'll do it!"

He savagely kicked the lamp-post and discovered to his dismay that he was lost. A poker-faced Chinaman stood in the doorway of his shop smoking a long pipe.

"Is this Chinatown?" Saxby asked, rather fatuously.

The imperturbable merchant nodded, a slight, Chinese nod. It was Chinatown, the very heart of it. Saxby stood staring at the dingy shop window. Unlike an American shop window, the Chinese merchant's gave no indication of what the proprietor sold. It was bare of everything except one small bowl of pebbles and water in which a single Chinese lily bloomed in white purity.

"How much for the lily? Bowl and all?"

"Him not for sale."

Saxby fished out a twenty-dollar bill and flashed it in the Chinaman's face.

"I guess you'll sell it for twenty dollars."

Without a word the merchant reached for the lily, bowl and all, handed it to Saxby, and pocketed the bill in silence.

As he walked away, carrying his purchase tenderly, old Saxby fumbled in his pocket. He found the two packets of dyes, the blue and the yellow.

With a gesture of shame he tossed them into the gutter.

"White Lily!"

THE END

"QUARTERLY" READERS—

DON'T MISS AMAZING STORIES MONTHLY

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AMAZING STORIES *has from time to time printed excellent stories about that remarkable insect known as the ant. Various phases in the possible development of this insect have been covered. This story deals with still another side of the ant's life. We know about their wonderful mentality, probably guided by instinct almost entirely, but which leads them to do wonderful things. But haven't they also an emotional possibility? These co-authors have given us an insect story of unusual literary merit, as well as of scientific value.*

Miss Sturtevant was fastened to the wall by what looked like bands of silk, at which she strained. Before her . . .

CHAPTER I

IT was a wild and disorderly public meeting, which soon got out of hand, and degenerated into separate groups which bunched themselves around some agitated or oratorical leader.

Colonel Mortimer Fortescue stood aside, among a little circle of people. His face was grave and somber and he put aside with an impatient hand the indignation of several men, who pressed about him and urged him to take some drastic action.

"There is no use in hurrying anything, gentlemen," he told them, wearily. "The menace which confronts us is so unusual, and so unthinkable to the general mind, that I am sure that it will take some time for the truth of the matter, which has been so definitely rejected here tonight, to even be suspected. I shall have to stand aside and see my country approach the brink of ruin before it will allow me to do anything to stay the catastrophe." He sighed. "I'm going to the laboratory. Miss Sturtevant will probably go there. I saw her in the boxes. Let us hope that this great audience gets away—safely."

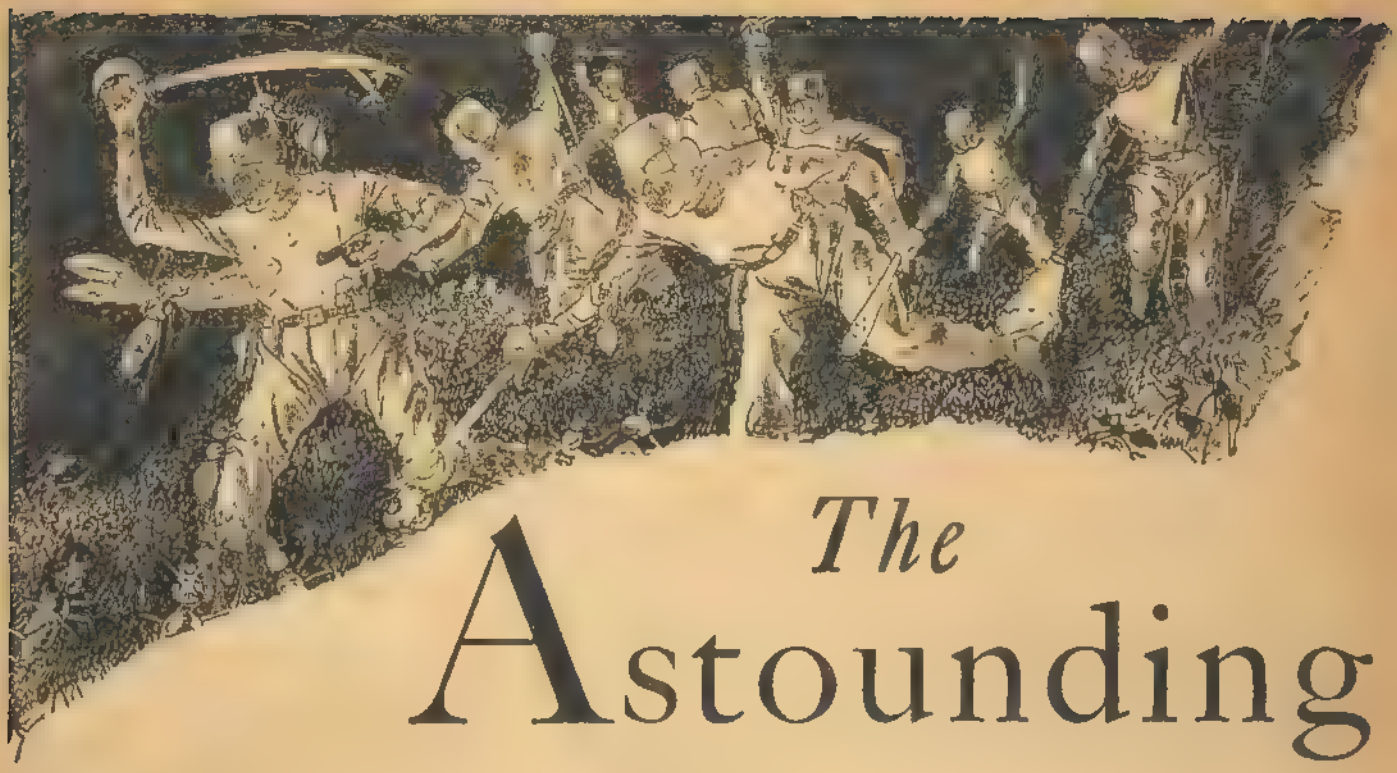
He turned and threaded his way among the thousands with which the new Madison Square Garden was packed, and was soon lost to view. Some of the people among whom he passed turned and stared after him, and many of them sneered.

"There he goes, now!" Thomas Goellet said. He was at the foot of the big platform where the speakers had stood and from which he had descended when he saw that it would be impossible to preserve regular order of a meeting. Thousands of people were still there, and many speeches were being made. The great place, which even thirty thousand people could not overflow, was like a square in the open air. Unless one stood beneath the amplifiers suspended over the platform, the voice was lost.

"Just the same, Goellet, the old boy made it seem reasonable," young Nicholas Ivanoff, the son of the great Ivanoff, the engineer who had given New York the bridges which reached their great fingers out in tremendous sweeps into New Jersey, into Long Island, into Westchester, into Staten Island and beyond, clear to the Jersey Highlands, was the one man who could and would contradict Thomas Goellet, whom the newspapers openly called "the Czar of New York." "I remember father read some curious old things from a Frenchman —Gourmont, or some such name—that suggested the same fantastic possibility as this which the learned Colonel would have us accept now."

Goellet's face turned purple.

"You are speaking of more than a generation ago, when your father was a young man," he said. "We have most certainly changed since then. I hope so, at any rate! Fantastic ideas have given way to facts. If anyone tries to mention an insect to me again I'll not be responsible. What we want to do is what I urged tonight on the Citizens' Committee. We ought to round up every Oriental, we ought to see what these pestiferous Labor Unions are doing. We ought to have spies out everywhere, to find out what power is behind this terrible business. It is deliberate, I tell you, and devilishly well planned. It is meant for terrorism. To connect such destruction as we have seen here in the last month, with the fact that the countryside is having an



The Astounding Enemy

Illustrated by MOREY

unusually heavy insect pest this year, is to show the childishness of mind which belongs to the dark ages, before man began to think."

Ivanoff, a tall man of about thirty, looked amused.

"Well, don't think you can muzzle *my* mind, Goellet," he said, with a laugh. "I'm going home. Nothing has been accomplished, so far as I can see, except that we have succeeded in scaring New York into hysterics."

A man with a dark, sullen face followed the graceful form of the Americanized, native born Ivanoff. His father had given to America her amazing system of linked city and country, by means of the enormous bridges which he had constructed. Gregory McDowell was called a dreamer by everyone. He had no interest in making money and had not been seen in the country's metropolis for ten years, living on the ten thousand acre estate to which he had retired when the age of machinery came in, together with a few choice spirits who liked the seclusion of his machineless home. He touched Ivanoff on the arm and the two, well used to each other, finally got away from the great building. Once outside, they involuntarily turned and looked back at it.

"We have the same thought," Ivanoff said. "We both wonder if we will ever see that great mass, covering so much ground and having so many interests housed in it—that big building, the third of the name—we are wondering if we will see it fall—too."

"That is exactly what I was wondering all during the meeting," McDowell turned the other way. "Don't look at it any more. There are people there yet. I don't want to see one of these disasters that have been occurring; to read of them, five hundred miles away, is dreadful enough. What did you think of Colonel Fortescue?"

"The only sane man there!"

"Then you accept his theory of these awful events?"

"I don't know about that. I confess that the theory seems fantastic, but not more so than Goellet's ideas about the Labor Unions and the Yellow Peril. What if there are a lot of Japanese and Chinese and a good many Hindus in New York? Right on the Island, I mean. I'm leaving out the big Chinese quarter that used to be called Newark and the place that was Jamaica which is now all Japanese—and a most interesting town. So far, it is only in the big cities that these things have happened. Let's get a paper, by the way."

They were about to look for a newsstand, when they heard the peculiar horns of the news wagons. People began running toward the sound. Ivanoff and McDowell bought an armful of papers and turned aside into one of the public lounging places, where they paid twenty-five cents for the right to sit and rest or talk in the long, flower-lined corridor, which had once been an old-fashioned arcade between two streets. The lounging places all over the city were full at that moment, and if the collected sighs and groans and exclamations which were being uttered could have been rolled together and put into a record, it would have been like a breath out of that dismal Hell where sad, lost souls wander.

For—the news of the night was a gigantic nightmare.

The papers had used scareheads until they could find no larger type. Now they contented themselves with the normal sized thing and with bald statements.

"Five Buildings Fell Today in Detroit. The Loss of Life Is Approximately Two Thousand. The Bridge

Between Detroit and Windsor, Canada, Is Sinking, The Middle Span Slowly Parting. Derailed Trains Throughout the West Cause Enormous Loss of Life. Serious Conditions Cause the Telegraph Companies to Implore the Public Not to Telegraph Save in Case of the Direst Necessity."

Ivanoff and McDowell grew paler and paler. Occasionally, in the midst of other noises, there would be a distant crash and those in the lounging place would look wildly at each other, and then they would look up at the ceiling. Over them there were forty stories of residential floors, of business floors and of recreation floors. People got up and began to go out.

Ivanoff and McDowell arose and went out, too, and stood uncertainly on the sidewalk. Above them, the moving sidewalks, to the fourth tier, were jammed with people. All over the city, there was the instinct to get out in the open air and stay out. Far out on the roads which crept and wound through and on *terra firma* could be seen the flashing of motor lights. The great bridges, whose vast structures were usually blazing with those lights, were almost deserted, although the great tungstens shone on them, as usual, making their roadways as light as day.

"Afraid!" said Ivanoff, after a while, as he and McDowell stood looking about them. "And how few planes and gliders. After the hundreds of accidents that we have had recently, the air is almost clear of traffic. I do not remember ever, in my whole life, seeing the air traffic over and through New York almost at a standstill."

"Let us go to Fortescue and offer to help him," McDowell said. "No, this is not a sudden resolve. I am convinced that in him is the one mind equal to this terrible crisis. His laboratory is over on the west side along the pleasure street of the Hudson. Let us go there."

CHAPTER II

THE pleasure street of the Hudson lay softly in the bright moonlight as the two friends turned into it. For five blocks behind it there lay the pleasantly winding lanes in the midst of which low, quaint, ancient-looking houses snuggled, houses such as might have been used in the old days when millions of families lived in New York. Now, only the extraordinarily rich could afford these little play houses, these quaint old individual gardens facing the river.

The Fortescue Laboratory was a three-story house in the ancient Colonial fashion, and surrounded by old rose bushes and perennial flowers. It was one of the places pointed out to visitors who viewed the scene from the water or the air.

Having been one of the first of the great scientists to benefit by the law which compels all commercial firms profiting in the remotest degree from the researches of science, to pay a percentum to the "Scientifics" the Colonel, whose title was that of a commander in the New York air fleet, was one of the extremely wealthy persons of the metropolis. His fiancée, Mildred Sturtevant, was the daughter of the famous Dictator of Agriculture not long dead, and between them they controlled an amount of wealth which even the wealthy had a little trouble in computing.

There was a bright light in the second floor of the Colonel's house, which was the main laboratory part, and the two friends announced themselves by the act of pulling at a bell which hung outside the door, it being Fortescue's contention that all the appurtenances of his house ought to belong to the period in which it was modeled.

They found him in the big central room, talking earnestly with Mildred and with a dark little Japanese, whom both of them knew for Dr. Notzu, the celebrated Japanese scientist, who had been a guest of the Fortescue Laboratories for two weeks, arriving by airplane in reply to Fortescue's urgent radio-tel.

They welcomed Ivanoff and McDowell as old friends, which, indeed, they were.

"We've come, Fortescue, to tell you that if there is a Citizens' Committee forming to investigate the Japs and the Chinks and what not, we will try to get together a Committee to back you up in the researches which you and Dr. Notzu seem to think the only way of meeting this astounding enemy." Ivanoff nodded in assent, as McDowell spoke, and with that nod he pledged the vast forces of his wealth and the enormous influence of his name. Colonel Fortescue flushed and silently grasped the hands of the two. He made a palpable effort to subdue his emotion.

"Sit down," he said. "There is more or less a Council of War. Miss Sturtevant and I and Dr. Notzu have just pledged ourselves, our fortunes and our lives to this war—and let me tell you, that no war that this distressful old world has ever seen will equal it. Already the casualties make that last great insanity, known as The Great War, seem like child's play. Who can estimate the millions that have died in the last five months? Consider the fact that the Insurance Companies are out of business. What a tale that tells! Consider that we can no longer take time to attend the ceremonies of cremation, but have to have these horrible wholesale affairs. Consider that business is at a standstill and that traffic in the air has practically ceased. There are terrible accidents in ground travel, but people figure and figure rightly, that they have more chance there than when a plane literally cracks in two or—as seems to happen all the time—simply sheds its propeller blades as if they were not fastened on by anything but wire. Consider the fact that we are constantly eating less and less and that the poor are in the most desperate condition. Even in parts of the country where the crops are not seriously attacked, it is impossible to either ship them out or to get others in. Consider the foundering of the ships in all seven seas. Consider the fact that in London, Berlin and Paris this destruction is going on. It will not take five years for the world of man to be laid as waste as though he had never existed on it as a civilized being. For Goellet here in New York and Radclyffe in England and LeTour in France to declare that this is a concerted movement of the suppressed Bolsheviki is absurd."

"We heard you tonight, Colonel," murmured McDowell. "I am no scientist and I am in New York and away from my archaic home for the first time in years, only on the invitation of Ivanoff here, who wanted me to throw in what little influence I have on this matter of supporting you and your theories. So here I am."

"I thought that I'd like to hear your theories more frankly expressed than they were tonight in public," Ivanoff added. "Between us all, we combine a fair amount of wealth and with your name and that of Dr. Notzu, the scientific bodies of the world ought to work with us. If what you claim is true, I'd like a sort of statement."

"Very well," Fortescue replied. "I am more than glad to make it. You remember what happened six months ago?"

"Yes, the terrible affair of the great Long Island Bridge. My father built it. It extended right out to Jamaica, the Japanese quarter. On a Saturday, which is the official holiday for everyone, when everyone is abroad and when the spans of the bridge were crowded with hundreds of thousands of people, and when the shops along the sides of the arches were jammed—those spans began crashing. They buried the people in the houses beneath and they hurled those on the arches to their deaths. Many of the electric connections were

short circuited and fires sprang up everywhere. I haven't got over that, yet. I was one of the first to fly over the terrible scene, for I was in my hoverer near-by and heard the roaring of the falling iron."

"And that started everything," Fortescue went on. "It was a week afterward that the Woolworth tower fell. It was one of the old towers but had always been considered perfectly safe. The next week in the evening hour the bridge between Manhattan and the Atlantic Highlands fell. Smaller bridges throughout the country and throughout Europe have been steadily falling. For ten years previous to the present one we have had enormous difficulties with crops and transport. Extraordinary rust has invaded engines, strange, unbeatable diseases have attacked wheat, cotton and corn. In England they have had pests of oriental insects. But it is only in the last six months that structures everywhere in Europe and America have been inexplicably crashing.

"Fools like Goellet and Radclyffe and LeTour are running around in circles, like a lot of crazy dogs, snapping at everything that they see. Jails are full of suspects. The machinery of the law is all disturbed. Terror sits everywhere, so that there is no production of anything. Factories are closed down. And—as I said before—the Insurance Companies are out of business—the first time in history that that has ever happened. They are practically wiped out. The death rate, with all these terrible catastrophes, is amazing.

"I began working ten years ago, when I was a lad of twenty, with the matter of these insect pests. The world had never seen anything like them. It is, you know, no longer possible to raise any important staple crop without the most elaborate precautions. Farming, for the individual, is not possible. Only the great groups, such as the Dakota Wheat Magnates, can afford to hire the high priced specialists who will arrange for the barrage of poison through which the hordes of insects cannot go.

"Well, five years ago there started the trouble with ships and ship engines. I gave a great deal of attention to this and found that there was no chemical reason for the disintegration which so frequently was responsible for the breaking down of engines in mid-ocean. There was a strange reaction which I could not name. I have been working along lines which Dr. Notzu and I have agreed on, for the last two years, and I must tell you that the terrible events of the last six months have not surprised us.

"It was agreed that I should go tonight and see, if by any chance, I could convince that vast audience in Madison Square Garden of the real danger, but when I saw how they received it, I stopped. No use to argue."

"I heard people laughing and swearing at the same time, at the idea that what you said could have a grain of truth," McDowell stated. "But—I think I am prepared to accept it. I have done a great deal of work at my place, too, in the last ten years. As you know, no machines are allowed in it. As much as possible I have tried to go back to the ages when we lived with simplicity and nearer to the earth, our mother. There are a good many people who have come to live on this tract of ten thousand acres and to work with their hands, as most of us have almost forgotten how to do. I availed myself of your friendship and installed your poison devices, however, and by their use and by ceaseless vigilance we have succeeded in doing what was declared impossible when I went there—that is—feeding, clothing and maintaining ourselves wholly on the produce of our own acres, hand-worked.

"In the course of this work, we have come to closer grips with nature and with the insect world than has the rest of humanity, I think, unless we exempt the people in Asia who are still more or less working by hand.

"I tell you that the intelligence of the insect world is appalling. There is no other name for the thing. I have seen such actions among them as I stooped, hoe in hand, to observe, as have sent shudders of despair through me. I—you perceive to what I am tending, Colonel Fortescue?"

"Yes."

All in that room were pale, but they looked at each other with steady eyes.

CHAPTER III

"THE fact of the matter is, the agency which is destroying the world, and doing it with deadly swiftness, is an acid."

Colonel Fortescue had taken McDowell and Ivanoff into the inner laboratory. Mildred Sturtevant and Dr. Notzu busied themselves bringing him what he needed in the work that he was doing and while the night was now far advanced none of them thought of going home. In fact, the whole great city hummed and throbbed with the tramp of the millions who walked the streets on the ground level, or took their cars out on the roads, usually deserted for the air. The air was strangely silent.

"Think over the events of these terrible six months," he went on, "and you will see that what has happened is that metal—the great discovery of man, his tireless and perfect servant—that this has been successfully attacked. What things fall? The iron bridges. Stone bridges, three hundred years old, stand. What buildings fall? Those with steel construction. Houses like this one, of brick, have not fallen. Stone houses have not fallen. Many of our great laboratories and museums and schools, being of stone, do not fall.

"I have given my attention then, to the matter of metals. Why do iron bridges suddenly collapse—*all at once?* Think of the enormous length of your father's great bridge, Ivanoff, stretching across the river and over to Jamaica, in its forty great arches, and the enormous Highland bridge. A fault here and there might have caused sagging or breaking, but remember that the whole thing fell in the course of twenty minutes. It was as if all supports had been cut through at an appointed rate so that they would part at the same moment.

"Well—Ivanoff—McDowell—*that is exactly what happened!*"

The two men gazed at him, dumbfounded.

"Then you actually think that it is some human agency?" exclaimed Ivanoff.

"No!"

Again they looked at each other. The Colonel's eyes were deep and dark and the knuckles of his thin hand stood out sharply, as he clenched it on his knee.

"I tried to say tonight what I had found out, but I might have known better," he went on, in a low, steady tone. "When the American and British Scientific Bureaus refuse to even send investigators here to see our experiments, I should not expect the unscientific world to believe. This moment in the history of human life, Ivanoff, was foreseen long ago, in the days of our forefathers. So long ago as 1910 Rémy de Gourmont made this statement:

" 'If man is finally obliged to abdicate—which seems probable—the animal world is wise enough to raise up an heir to him. The candidates to this heirship are in very great number and they are not those of which the vulgar think. Who knows whether our descendants some day, may not find themselves face to face with a rival, strong in all its youth? The creative urge has not been idle since man emerged from the animal world, its master and rival. Following the production of this master, nature has continued her work. The accident of humanity may repeat itself tomorrow.' "

Again they looked at each other. With the enigmatic words of this ancient writer, quoted by a man who had come to grips with the very rival of which he had prophetically written, there fell upon them all that deep emotion which holds those who know that they are actors in one of the momentous battles of the universe.

"Look at this." Colonel Fortescue held out a number of pieces of metal. "Here are bits from the Jamaica bridge, from the Woolworth Tower, from the Detroit-Windsor bridge, from five bridges which fell in the British Isles last month. Pieces from the engines of the Manchurian, which drifted for ten days, her engines stalled and her radio silent, while an epidemic, undoubtedly caused by enormous swarms of savage flies which suddenly appeared on board, in mid-ocean—took off almost two-thirds of passenger list and crew.

"I will not weary you with the difficulty of the experiments which I have conducted, nor with the frantic fear which has made the processes so slow. I have now to offer you this fact, and Dr. Notzu will bear me out and no scientific bureau will be able to deny it—when I say that a trail of *animal acid* was laid, in all these cases, along the pivotal parts, and that this acid eats into the metal and cracks it in about half an hour. These are bits from the propellers of the planes which fell, to the number of sixty, two days ago, in one Aviation Field, only. They have been treated with this thin thread of acid, which caused them to fall off as soon as the plane had risen about six or eight hundred feet, more or less. A fatal height. Much worse than a shorter or a longer distance.

"The insect pests which have so long harried the world are not increasing. You all know that. Many of them have been conquered. The weevils and the slugs, the least intelligent of the insects, are under control.

"That division which we have not succeeded in controlling comprises the dreaded termite ants, of a size—here, I will show you some that have been just sent in from the southern part of New Jersey." He hunted among the medley of scientific paraphernalia on his benches and handed to McDowell a large glass container. The eyes of the room were fixed on this container in which there lay the body of a termite ant, *six inches in length.* His ferocious jaws were fully an inch long and the eyes, at the ends of the strange threads which projected from his head, were malicious and disturbingly intelligent.

"This is one of the millions of termites which have all but exterminated the herds and flocks of New Jersey, Maryland and Pennsylvania," said the Colonel. "They have been checked in some States by fire, seemingly the only thing which will halt them, for they have proven almost impervious to chemicals. Individuals have been observed among them of the astounding length of ten inches, but none of these have ever been captured. They show a shrewdness and cleverness which is amazing and their fellows protect them, sacrificing any number of lives in order to save these larger ones, who wear a very handsome metallic looking coat, quite different from that of their lesser fellows. However, I will not be distracted from my one special work by the study as to how to control these individual classes of insects. That with which I am concerned is the matter of the acid.

"*There,* my dear friends and helpers, is the intelligence of our enemy, actually coming out into the open. That acid is an animal acid, but an animal acid which has never been known to science before. It is deliberately produced for the purpose of destroying iron. *It is not an accident.* It is as carefully done as though it had been produced in one of our laboratories."

"I am almost afraid to think what you mean, Colonel," said Ivanoff, after a moment of silence, "and yet, I cannot evade the conclusion. Do you mean—then—that the insects are rising to the intelligence of man, and that they are actually understanding chemistry?"

"They have always understood it, Ivanoff. It is ourselves who have not understood them. Take the royal jelly with which the bees make the queen. The egg from which they develop her is the same as any other egg. They can feed it and produce a queen. Is there any way, whatsoever, that we have succeeded in developing anything like that? You know that we have not. The insects have always understood the injection of a poison which paralyzes. They have always had the most mysterious lives in this world, of which world we are really a small part, although we have thought ourselves so important. They have almost beaten us, again and again. I mean, in this matter of the acid, that the insects have done a thing which is like our own and our most expert chemistry. They have learned to secrete in their own bodies an acid which is ruin to all metal. But—that's not the whole story, not by a lot. Remember the fall of your father's Jamaica bridge. Insects, carrying the acid which bit into the iron of that structure must have swarmed on it, not less than half an hour—or, say an hour, before that event. That means concerted action. That means an intelligence which commands.

"I started tonight to tell that vast audience what I had found out about the bridge, but stopped when they hissed and laughed. I found out that about an hour before the bridge fell workmen who were painting the underside of the tenth arch were amazed to find very large black ants running everywhere. Only one man survived in that crew.

"It was he who told me this:

" 'We were working away, when I noticed that ants were running right through the paint that I was using. I called to Marty, my pal, and he said that they were there, too. Well, we have got so used to bugs the last few years, always getting in our way and always being a bother, that both of us just tried to brush them aside, and when we found that we could not, because there were so many of them, we called to our foreman who said that it was late anyway and we'd stop for the day. They would be gone by the morning. We left our scaffolding and climbed up on the bridge and started to walk to the car-stop, where some of us were going home by rail and some of us were to take the air-buses—and then it happened. The whole thing fell, at first slowly and then quicker and quicker. I hung to a tall electric light mast and when it slowly bent over at right angles I was at the top of it, and could drop down upon a terrace on that forty-story building, which crashed a week afterward.'

"You see," Fortescue went on, "that the ants were on the under side of the bridge. No one noticed any ants except these workmen and Captain Dawes, of the river patrol, who was flying his hoverer and who noticed that the under side of the bridge looked very strange. He flew under and hovered and was able to observe that the whole under side of the bridge was fairly alive with large black ants. That fact is in the regulation patrol report for the evening—but Goellet still insists on talking about the Bolsheviki!"

CHAPTER IV

"LET us agree to speak plainly among ourselves, then," said Ivanoff. He was very pale, as they all were. "What you have gradually shown us is that there is intelligence in the insect world, which is as our own. The prophesy that Rémy de Gourmont made so long ago is on us. Do you agree that there are intelligences among the insects? What race of them do you think most likely to supply the *intelligentsia?*"

Fortescue's reply was instant.

"The ants. The rest of the insects are acting more or

less according to their traditions. They are flooding districts where there is food. They are eating, according to their natures. They are much larger than they were ever known to be in the course of the historical world, but that could be easily attained by the intellects of the insects. It would be an easy matter to change the feeding habits, using some of the ancient lore of the insects, known to every race among them, which would result in a great development of size.

"But the destruction which has now fallen on metal, man's peculiar possession—that is a different matter. The animal acid which corrodes iron and which pierces steel—think of that, my friends!—and to which tin and amalgams are as so much putty—*that* is not a development of the natural powers of the insect world. That is the power of the insect world, invading man's realm, and understanding that realm, as well. That's the thing which—I won't say that it frightens me but I will say that it is something which I face with difficulty. If the acid that eats metal is produced in the body of an ant—the producing of a poison in the body is not against the ancient law of the insect but the producing of a poison for a certain substance or kind of substance which is wholly outside the range of the insect world—that is a different matter."

Ivanoff shook his great frame and snapped up his head.

"We have got to win the world all over again, Colonel," he declared. "Man won the world through millions of slow and stupid years. Now he has to win the world again and in a hurry. In the greatest hurry that anything was ever done. I've been thinking as you talked, Colonel. Let this sort of thing go on for even one year and man will be so crippled that his world will all but be lost to him and again he will be at the mercy of the animals, which he once put under his heel. Let us start by saying that all the fortune which my father left to me is at your disposal and that I will bring influence to bear on many others, by which the wealth of America shall be made available—even if fools like Goellet continue to say that *we* are fools."

"I have already pledged to the cause which the Colonel alone represents my personal fortune and large contributions from The Woman's Party, of which I am an officer," said Mildred Sturtevant. "They represent the most advanced women and most of the wealthy women of the country. They are far more open to conviction in this matter than any body of men to whom I have talked," the beautiful girl ended, with a flash of the malicious gayety which usually illumined her features when she made comparisons between the sexes.

"The scientists of Japan, my country, will soon come to your belief, Colonel Fortescue," Dr. Notzu stated.

"I believe that they will do so far sooner than our own," said McDowell, bitterly. "The Japanese Bureau of Scientists have again and again demonstrated that they are more open to new ideas than our own institution. However, in our laboratories we have men who, once they have taken an idea, give good accounts of themselves. I believe that that is what will happen in this case. Meanwhile, no doubt, Goellet will bark and snap and sneer. I really don't understand the personal animus that he showed you tonight, Colonel. It was quite easily seen. Have you had any row with him, besides this matter?"

Fortescue shook his head and glanced at Mildred.

"The trouble lies much nearer home, McDowell. He has been financial administrator for Mildred in her minority. Her father left it that way. Goellet became personally interested in my girl, and when she was quite young, she tentatively agreed that if the Eugenic Council gave their sanction she would marry him, when mature. Before she attained her majority she had changed her mind entirely about that, and Goellet was furious. We think that there is something besides personal feeling. I have already, in her name, put an examiner on his books, with reference to his stewardship and the reports which come in are steadily unfavorable to him, although we can prove nothing, as yet. The will of Mildred's father gave her the entire and very large income of the fortune to do with as she chose but her financial administrator can hold the principal until her thirty-fifth year, which is the second majority period, after which all administrators have to be dismissed."

"Oh! So that's it, is it?"

"Yes. However, we can dismiss Goellet, I think, from our minds. He will do us damage in that he will discredit our researches, but I am sure that in time the Bureau of Sciences will cease to take dictation from him. I thank you, McDowell, and you, Ivanoff, for the offer of money. We shall need it. Mildred and Dr. Notzu and I have already pooled our possessions. I now wish to ask you one last question. If in the course of this discussion, I should make a statement which would seem to you wildly fantastic and wholly improbable, yet which did not contradict the underlying facts of this dreadful situation—the fact that it is insect intelligence, malignant, deadly, intentionally dangerous to humanity, which we are now facing—if I should make a statement and then turn all the money that you could give me, to the dealing with the facts of that statement—which your intelligence would refuse to believe, would you still trust me and go forward with me?"

They were ready with their answers before he had concluded.

"Whatever you may think, and consequently say, the fact remains that you are the only member of the great scientific bodies of the world who has made out a case for the belief which you have at this crucial time. Say what you choose."

It was McDowell who spoke and Ivanoff nodded an emphatic agreement.

Fortescue drew a long breath and his face lit up.

"Mildred and I first discussed this matter," he said, "and then, when Dr. Notzu came to work with us, he agreed. I will now tell you that I am sure—that there are not only intelligences back of all this—but *an* intelligence.

"Yes! I see by your faces that I have stunned you, but when you hear all that I have to tell you and see, as I have seen, you will know that we are dealing with a Napoleon in the insect world, quite as ruthless as his human prototype, quite as powerful if not more so, just as much if not more, the general, and—as always is the case, a super-egoist. It is by that, alone, that he can be caught."

Ivanoff and McDowell looked at Fortescue steadily. He could see that while they agreed with him, their accustomed modes of thought made them feel that they were agreeing with insanity.

"How do you propose to catch—er—him?" asked McDowell, bringing a native Scotch caution to bear on what had already all but stunned him by its implications.

"I have received reports," Fortescue replied, "which gave me a clue. You know that the insect pest difficulty has been going on for over ten years, ten years which have practically revolutionized farming, and consequently, the world. The beginning was the appearance of termites in Florida and their rapid spread, fanwise, up through the country. With them came armies of all other insects. I have, by a world wide survey which Dr. Notzu, Mildred and I have conducted for six months, ascertained that there is on the coast of North Carolina, a moderate sized island on which

there formerly stood a beautiful house and estate, the property of George Havens, the plane manufacturer. Nine years ago he was forced to abandon the place, owing to the extraordinary invasion of ants of enormous size. The termites, giants of their kind, nearly ate him and his wife alive one night. It was found utterly impossible to keep food of any kind from the swarms. They tried fire and chemicals and all that science could do but it was hopeless. A whole herd of prize cattle were devoured, as they stood in a meadow, in one night. Naturally, no one would stay there, not even the crew of Havens schooner or family submarine. The place was abandoned. People who have occasionally tried to land there—a hydro was wrecked near there last week—find that they are attacked, almost when setting foot on land, by ants which are so ferocious that they are obliged to swim away, even if it seems that they must drown. Airplanes which we have sent down there have dispatched their hoverers over the island. They, in turn, report that the orderly appearance of the countless streams of ants on the island is quite the most amazing thing they have ever seen. The opposite coast is wild and deserted. The nearest town is ten miles along the coast. But the island, itself, lies close in and there is all but a ford to it.

"Well, along this ford there is occasionally a tremendous upheaval, as though a tunnel were being dug beneath it and as though that tunnel had caved in. As a matter of fact, that is what I think happens. Along that tunnel, I am sure that millions of ants proceed to the island. I am sure that we shall find there headquarters of some kind or other. I——" he hesitated and looked down and then up, keenly. "I'm going down there and start to fight the ants there. I'm going to clean out the house, and barricade it with copper screens—so far, copper seems to have resisted the acid—and there I am going to continue my work. Dr. Notzu will remain in New York in the laboratory here and he and I will, of course, have the radio-tel, by which we can converse as if we were together. We are setting up a station on the island. I believe that there I shall find the great Intelligence which is arranging all this battle against us. We may be in danger. In fact, it is only after prolonged arguments that I have agreed to take Mildred."

"You mean that it is only after I have stated that I am going," the girl interrupted. "Fancy trying to put me into my place—in the rear! You'd think we were back in the nineteen hundreds. I have a perfect right to go, too, since I have all my money in the venture."

Fortescue smiled at her and she smiled back with that brave and gallant manner which conceals the fear that we have for our beloveds. McDowell and Ivanoff knew perfectly well that Fortescue would be in danger, some way or other, *if* the idea that there was an intelligence there on that island, were true.

CHAPTER V

IT was agreed on that night, before Ivanoff and McDowell left, that all four of them should go to the island. This would leave Mildred and Fortescue free to devote themselves to scientific work while the other two would try to provide for their wants and protect them. They would also help to cook and care for the young student helpers. The big hydroplanes which were the means of travel between McDowell's estate and the world were sent for, since they were made almost wholly without metals, being a creation of McDowell's wife, who shared his enthusiasm for woods and compositions. Ivanoff, owning a great aviation field of his own, had the most elaborate precautions taken to prevent the acid-bearing ants from getting at his machines, many of them built like McDowell's, without metal. A score of men and women, devoted scientists but most of them working outside the American Scientific Bureau, with its staid and reactionary tendencies, were approached by Ivanoff and out of those who eagerly applied, one hundred were selected for the work of making the island habitable and safe from insects. They were to go down in squads of twenty.

The equipment for the radio and for the radio-tel—that perfect means of communication, by which anyone in the world can talk to anyone else in the world, on the same vibration base, were sent in triplicate. The question of food supplies was a serious one. Eventually, it was decided to be best that a supply ship should stand off and on, on the outward side of the island, from which supplies could be taken, a little at a time, and thus saved from the possibility of the insects' attacks. With a small wooden vessel, on which not a particle of metal was carried, and with extensive chemical fumes constantly released, the possibility of the insects either damaging the ship or the stores seemed as remote as it was possible to make it.

The scientists who were giving their services were sent down in squads of twenty. Their first ventures on the island were graphically described by Gerald Chin, the well known Scotch-Chinese young explorer and entomologist, in a letter which arrived by plane on the second day after the first squad had soared away on one of the great commercial planes from Ivanoff's flotilla.

"*Report on first squad arriving at Ant Island.* (Suggest this name, instead of buzzard rock, since the extinct buzzard was never here, it seems.) The hydros landed us on the bay at ten, and the attendant hydro which carried the many chemical apparatus arrived a few minutes afterward. We were already dressed in the flexible copper hip boots with gloves and helmets of the same. The adjustable copper veil for the helmets were in place. The special 'body' of flexible copper over the silk union suits were inspected and secure. We were sure that no matter how we were attacked, we would not be in danger of our lives. The two women of the party, being old campaigners against insects, were even cooler than some of us. Captain McCord, our leader, having assured himself that all was in readiness, and that the hoverers, with their chemical guns, were ready, gave us the masks to be worn beneath the copper veils, so that we might not be affected by the chemicals from the hoverers, and we all got into the launches which the attendant plane had brought and set out through the still water for the island. I confess that the sight of the tall, dark pines with which it abounds and of the big house looming about them, silent and deserted, gave me a feeling that here was a stage on which there was going to be enacted a great drama. Pardon me, Colonel, for intruding a personal thought.

"We swept rapidly toward the shore and at last landed on the pleasant little beach where the remains of an old wooden pier told us of the domestic uses to which the beach used to be put, but from that moment onward, sir, I can remember the rest of the day only in flashes.

"No sooner had we grounded the boats than we were thankful for the extraordinary precautions which you and Dr. Notzu had made us take. It seemed that the whole island suddenly heaved. The ground swelled and stirred as though it were alive, and it was! That which we had taken for black rock was a solid bed of black ants. I have never seen such monsters in my life. Some of them were fully fifteen inches long. Their enormous jaws could clearly be seen. They were commanded by other ants, with metallic looking bodies, *at least double their size.* You will have to take my word for this, or rather, the words of the entire party, for each of us are sure of this fact. These commanders

had not the great jaws of the blacks, and if one could control the terror which their appearance caused, it was possible to admire the humanlike attitudes which they took up, often perching at the tops of rocks in an attitude of self-conscious pride and arrogance. Their eyes are loose in their sockets, as are our own, and instead of being the insect eye, seem to have something like an iris. The fact that they have long eyelashes on these eyes gives them an appearance of exceeding fascination, and also inspires a feeling which I find myself totally unable to describe. It is probably mingled fear and admiration.

"The termites were there, massed at one side. I had taken them for a sandy patch—a patch which comprised about six or seven acres. I assure you that this is not an exaggeration.

"Despite our efforts and despite the fumes discharged downward by the hoverers and the chemical guns which we used, ourselves, every one of us was a walking mass of ants in five minutes. I shall never forget as long as I live, the feeling of seeing masses of termites steadily marching over my copper veil, so frantic with rage that I could detect the faint hissing which they made. I was also thankful for the mask, for although I could not smell it, I was sure that they were discharging the nauseous odor which is one of their weapons.

"We brushed them off continually with our hands, and the hoverers, coming closer, literally overflowed us with their chemicals. They succeeded in clearing all the pests off us before we opened the sagging front door and went into the house.

"You were very wise, Colonel, in all your planning, even though it was carried out in such frantic haste. The house is entirely built of stone. Mr. Havens had been attracted while in Europe by the imperishable quality of some of the ancient stone structures there, and had had this one built, entirely without modern mechanics, and even the door sills and window ledges are of stone, tightly bound together with cement. We found few ants in the house. The windows had long since gone and the place had been open to sun and rain, but it was no more damaged than a rocky hillside would have been—not so much, for the walls and the roof had protected it.

"The ants began swarming up the sides of the house within a half an hour after we had entered. We were obliged to again pay tribute to your foresight. The copper screens and copper doors, made to fit exactly to the measurements which you secured from Mr. Havens' blueprints of the house, were fitted in to the lower floor by the time that the ant army advanced on the house. We raced to the second floor and began to work there and had completed all but two windows, when the termites began pouring in. Again, sir—if we had not been protected in these special clothes, there would have been nothing left but twenty nice clean skeletons. I have never seen such fury, no, nor such courage. They must have poured in millions of their number while we struggled to insert and fasten the screen with the copper bolts. When they saw that only one last fastening was left on the final window those already in the room with us displayed such force, energy and despairing fury that it was heartstopping to observe them. We at last got the fastening in and then turned our attention to the terrible room in which we were. The walls were nothing but termites. Everyone of us were encrusted with them. They were massed on our face veils, despite the fact that we continually took them off. One of the hoverers with the special Termite gas, so expensive that we had not dared to waste it on the out-of-doors, came slowly moving past the windows, spraying into the room. It turned and returned many times before the termites began to drop off the walls and to roll over in heaps. One of the metallic fellows, despite my efforts to prevent him, squeezed himself beneath the door. We had hastily pushed wads of cloth into even the slight crack under the door, when we saw that we were to be invaded by the two windows, but with his powerful forefeet he tore some of this aside and escaped. I had had my eye on him and was exceedingly anxious to capture him.

"He knew what he was about, for one of the hoverer captains saw him squeeze himself beneath the crack of the front door and run into a large body of termites who were coming up the steps.

"He turned them back! In only a minute they had gone. What was more, Colonel, fifteen minutes afterward the masses of ants, black and the vicious reds, and the termites and the wasp-ant, all of which had been attempting, with enormous loss of life, to pass the copper windows while the hoverers raked them with fire, all of these began descending the building, dropping to the ground and scuttling off, as many as did not drop dead.

"We instantly set to work to make the house ready. Cleaning out the dead termites in that one room and killing those which remained, was a task. I never appreciated before the toughness of a termite. You can step on one of these fellows and even pound it with a screw-wrench and it does not seem impaired. We eventually got the mess together and took it out by the bucketsful and burned it. Not an ant was to be seen around the house, but two hundred feet away they were massed in a solid wall around the place. Unless you looked carefully, you would believe that only black rock and gray and white sand was off there, but a glass would show us that they lay out there—the enemy—in countless hordes.

"We have installed the batteries for the cooking range and for the laboratory crucibles. We have unloaded part of the portable, copper washed furniture. Tomorrow we will spend in washing all bases of the rooms, sills of doors and windows and all possible entrances for an insect, with the copper solution which will arrive—is now arriving, I believe—by hydro. The radio-tel will be installed tomorrow.

"So far we have found only a few ants in the house. The huge stones of which the house is constructed, its peculiar freedom from wooden trim, and the fact that it is built on solid rock, all make it practically impervious to the enemy.

"Awaiting instructions,

Chin."

CHAPTER VI

A WEEK after the first squad had invaded Ant Island, Colonel Fortescue and Dr. Notzu, McDowell, Ivanoff and Mildred Sturtevant arrived. They found an arbor-like affair extending from an immense cage which seemingly swung in the water, the arbor and the cage being enclosed in copper screening. Beyond the cage and at one side of it was a screened and shuttered floating dock, where everything and everybody who went up the arbor was unclothed—completely denuded and inspected minutely. The food boat on the other side of the island had been entirely enclosed, as to deck, by gigantic copper screens, for their third day of lying off the island had brought them millions of gad and blow flies, gray flesh flies and bluebottles, together with a small and vicious wasp, the sting of which gave a high fever to those attacked. The result had been that the ship had been entirely screened in. In two hours afterward the flies had ceased to bang against the screening.

The ship, protected with the sulphuric-copper solution as to hull and wooden parts and with the crew continually reapplying the solution, was safe from the

minor pests which attack wood. Thus the base of food supply was under cover, but getting food to the house was a strenuous affair. Chin, who was in charge of the ship, was in what they grimly called "the delousing cage" when Colonel Fortescue underwent his inspection there, and told him graphically of it.

"We started out with everything in tin containers, Colonel, but that will never do. Before the tender had reached the island, many of them fell to pieces in our hands. A sort of dragon-fly had settled on them in hordes, but we didn't think anything of that. However, they have some kind of acid, too. The big tin box I had in my arms contained eggs. Suddenly the bottom fell out!

"We got hardly anything in safely. We shall have to use a hydro, pack it, send it over at high speed—*that's* the one thing that seems to floor 'em!—and get the containers into the arbor as fast as possible. Have to use the copper solution for the containers. I didn't think that it would be necessary for that short distance, but it is."

Colonel Fortescue shook his head and sighed. He was very tired and the realization that the fate of the world rested upon him weighed him down almost visibly.

"Count nothing as too much effort," he said. "I appreciate your spirit, my dear boy. We are waging war, not only for ourselves, but for humanity."

Up in the big stone house, Mildred Sturtevant looked with interest at the preparations which squad after squad of scientists, arriving each day since the first, had succeeded in completing. The radio and the radiotel, the antiquated telegraph even, had all been brought down, the latter connected by wire with teakwood posts which had been sunk in the ground of the island and along the shallow ford to the mainland, and so along the wild coast to Aspen, the small village town which was the Ant Island's nearest neighbor.

Stores had been brought from the supply ship. In the big copper screened safe in the old pantry they were at last safe. The electric dynamo in the rock ribbed cellar provided light and power. Drinking water came in bottles. There were a number of excellent wells on the island, but they knew too much to drink one cup of that water.

Beds, chairs and tables were about all that the houses had in the way of furniture, but in the room set apart for herself Mildred found a looking glass, an easy chair and—on a small table, a few potted plants, blooming in the sunshine. The tears came to her eyes as she thought of the weary and harassed man whom she loved having time and thought to spare for her passion for flowers in the midst of his terrible cares and exertions.

The copper screening, thick enough so that it perceptibly dimmed the light and through which even the fresh sea breezes off the windward side only lightly penetrated, and which were packed at every possible crack with copper waste thread, made the house insect proof. At the front door, which opened on the screened-in and copper floored arbor, there were three screen doors through which one passed in succession. At the top of the house the six big rooms which had been the great drawing and lounging rooms of the Havens family, were packed full of the scientific paraphernalia which the hydros had steadily been bringing.

Within two hours the routine of the house was established.

Ivanoff, by reason of his physical endurance and his strength, was to be the go-between and errand boy.

McDowell, patient and attentive, was to cook and serve the meals, no light a task, as it would never be possible to set an hour for them. They had to be ready, either hot or refreshingly cool, when the weary scientists could stop their work to partake of them or when their exhausted bodies demanded help. He and Ivanoff, also, would have to take turns in patrolling the house. Gerald Chin, by his own request, was to be the "outdoor man"—to patrol the island and report on what he found, and to take care of the supply ship's crew. With twenty, picked from the hundred who had made ready the island, with extra precautions as to protective costumes and with the deadly termite guns, shooting the one and only gas known to affect them, with the lesser gas which stuns and stops the rush of the red and black and with special nets with which to catch any insect wanted for observation, theirs was the post of most immediate danger.

Ten days went by in which the life on Ant Island was one of great monotony. Fortescue was occupied with trying to devise something which would be an absolute killer for the ants. He ignored the rest of the insects. In many of the great scientific laboratories of the world men and women were bending their utmost powers to the problems of insect control, for the influence of Ivanoff and McDowell had been felt.

The fruit eaters, the leaf destroyers, ruining crops, the roaches and woodbugs, now making life in a house all but unendurable, the borers, destroying wooden buildings, the plant lice, the body lice, enormous and deadly, capable of killing a man in a week if he is unable to find scientific killers for them, the winged, attacking insects, the poison-carrying moths, which made the night a time of terror, all these were being combated. The termites and the black and red ants alone resisted. When killed off or checked in one place, they reappeared elsewhere, and the destruction of buildings and structures throughout the world continued.

The daily news reel was delivered at Ant Island by the carrier plane from Norfolk, and each day the five in the house sat down to look in dead silence at its terrible history.

"There goes Sheffield's," said Mildred, one night. Her hand was tightly gripped by Fortescue's. Sheffields, the enormous department store in London which Sturtevant had founded a half a century before, was one of the great possessions of the girl. It had been almost entirely built of iron and as soon as the real danger to iron buildings had been sure, she had closed its doors. Some of the more precious contents had been taken out but she would not allow the army of men and women which would have been needed to entirely clear it, to risk their lives on its thirty-five floors.

Looking at the reel, they had seen it fall. The photographers of London, now always prowling about with their cameras, had seen one end of the great edifice sagging and had instantly gone up on hoverers. They saw there in that quiet room, the collapse of the structure, the merchandise hurtling through the air, the great girders falling, flailing through the air to smash down on adjacent buildings. There had been people in those buildings. Some had escaped, but many had been caught. The electric current had been cut off from Sheffields, so that the fire, which so often followed the falling of a building, did not spring up there, but in several of the near-by houses which were crushed, fires did occur. The fireplanes were pouring chemicals from the air when they saw the propellers of ten of them drop off. The planes fell, fell right into the fire.

They set the news reel to going after a few moments. Buildings falling, bridges falling, boats with their engines stalled, machinery of all kinds ruined, were what they saw. There was one view which showed the great reapers on the wheat belt, a reaper the monetary value

of which was a hundred thousand dollars, and which could not be duplicated short of a six months hurried struggle, they saw it actually falling to pieces, and that in one of the "protected" barns in which all machinery had begun to be housed. The type read:

"The Bureau of Science believes that a fungus growth is responsible for the constant deterioration of farm machinery. Thomas Goellet, of New York, announces that the Citizens' Committee of Safety of New York will sequester Newark and Jamaica, the Chinese and Japanese quarters of that town, and will seek abroad, through its affiliations, for the 'master mind' of the Bolsheviki. The laboratory, where Dr. Notzu, the eminent Japanese scientist is at work, belonging to Colonel Fortescue, was besieged with reporters, but the scientist sent out word that he was not interested in the matter as he was solely concerned with the work which he was doing. Goellet, it is understood, has made a point of the deportation of Dr. Notzu. Goellet also asks for the impeachment of Colonel Mortimer Fortescue, on the score that he has retired to an island with a number of friends, with a view to recreation, when his duty demands his presence in his laboratory. Crowds are sleeping out of doors in the interior of New Jersey, the suburban district, keeping fires and chemical flares going all night to protect themselves from the termites, which have invaded homes to such a degree that many children and old people have been killed. The terror of the termites consists, not only in the actual danger from them, but in the horror of the death, the victim being literally eaten alive, as the marching army passes up and over and through the body.

The effort which has been made to encourage birds to breed is slow. The extermination of the birds, which took place in the last generation and which was based on the idea of the greatest efficiency, is now proven to have been a terrible mistake. The robins and starlings which have been released from the Government aviary are so much in the minority that they soon disappear. It will take years to again even partially populate the world with birds, the natural enemy of our insects pests, who, now in this time when the metals seem to have been attacked with special diseases, are increasing and becoming bolder every day. Reports from the Entomological Bureau are slightly encouraging as to the abolition of the minor fruit-and food-eating and leaf-eating insects, but the ants, which are beginning to invade even our cities, seem able to resist all the efforts that are made to control them."

CHAPTER VII

IT was the eleventh day.

Ant Island lay in the rays of the morning sun, which fell through the copper screening on the people sitting in a big room on the top floor of the stone house which crowned its peak.

"There are no other insects on the island than ants."

Gerald Chin was speaking. "There is not a fly, not a beetle. At least, not so far as we can tell. It is quite impossible to compute the number of ants. They are far up in the pine trees—no pine caterpillars on those trees, either. When did you ever see a group of pine trees without them? The black ants are solid in the ring around the house. The termites have those acres over there. The red and wasp ants are not so numerous. They seem to do sentry duty for the others. Termites as large as the one which escaped us the first day are occasionally to be seen. They walk among the others, which make way for them, and they are attended by pure white ants—very large and fierce. Food is brought and placed before these fellows, who have the metallic coat which is so noticeable.

"The black ants have leaders almost as large. Their organization is better than that of the termites. They have their headquarters in among that clump of pines at the right, where one of the wells is. That well, sir, is dry. Ants go up and down the walls in such enormous swarms and in such well ordered ones, that I cannot escape the convictions that the tunnel, which you say, sir, is their means of entry from the mainland, ends there. We observed today a reddish brown ant, which we have never seen before and which, in fact, I do not know, proceeding from the well in a marching body, about sixty individuals wide. The body continued to spill over the well curb for half an hour and was brought up in the rear by very large black ants, possibly a thousand or so. They herded the brown ants off and parked them and we then saw that they were each carrying—the brown ones, I mean, a sort of pouch on their backs. The black ants took these off and began distributing them among the army which watches the house, day and night. We believe that the brown ants have brought something special for the army."

As by one impulse, they arose and went to look out where the ring of black lay about the house, sometimes still, sometimes stirring throughout its great expanse with a ripple, like that of the waves and again deceptively quiet.

"It is unnatural in the insect world, this ability to lie perfectly still for day after day, and especially for the ants," the Colonel mused, his arm about the shoulder of the girl. "It is conceivable that refreshment of some kind is sent to them. They have no food. There is nothing here for them. I have been wondering about that. Now I see that the commissary have arrived. The intelligence back of them is making them ready for something. They made a desperate sortie last night. We went out to the arbor and looked at the house. It was a house of ants. They were outlining it with their bodies. The fumes of the chemicals which we had set to going and which we carried with us to the arbor and sent right through them made little impression upon them.

"They were not successful. In one place three very small ants got in. That was all, and I am sure that we shall be attacked with greater and greater force. Now, however, the time has come to make the moves ourselves. We have been working together, Mildred and I and Notzu, and we believe that we have something which is a real start. We intend to try it tonight—this afternoon, rather."

The girl was white with fatigue but she walked with a firm step back to the table and took up an apparatus which lay there. The planes which had been dashing back and forth between Ant Island and the city of Norfolk had brought this and that, according to specification. Two of them had been lost with their crews, their propeller blades dropping off in mid ocean, although Ivanoff's people, at his Field, where the planes were kept, had taken the extraordinary precautions which Fortescue had demanded. The navigator of the second plane, however, had been able to use his parachute and had reported that, half an hour before he fell a veritable cloud of wasps had flown *toward* the plane and had flown directly into the whirling blades. He had, like all the world, grown so accustomed to astounding insect invasions, that he had merely worried for fear that they would "gum up the works." When the plane fell he saw the blades snap off and on falling into the water, himself, and inflating the rubber boat with which the parachutes are equipped, he had seen a small piece of the blade near-by and had retrieved it.

The hoverer, his escort, came along a quarter of an hour afterward and picked him up and picked up the wreck of the plane to which part of a blade was still

There was a clear circle where the rays were falling. Not an ant could come within it and those on which it fell not only died but shriveled and blew away.

clinging. Fortescue and Mildred had soon found that the well-known acid had been used.

"The flying hordes which met the plane, head-on, had been coated with the stuff," the Colonel had declared. "They sacrificed their lives by the hundreds of thousands, in order that they might leave the acid on the blades. They could not fly and overtake the plane and if they had flown into the blades from the rear they would have made no impression on them. They were sent out to meet the plane and to fly to their deaths, in order that the equipment which it carried might be wrecked. But these parts come in triplicate. The next plane brought the triplicate. We shall beat them—we shall save the world."

"Let us go out now, without waiting, Mort," the girl said. Usually she addressed Fortescue formally, for in their scientific relationships they forgot the personal ones, but she was tired and overwrought. "I want to see if this will do it."

"What is it?" asked Ivanoff. He and McDowell had been so busy with their many duties and the two scientists had been so secluded in their workshop that they knew nothing of the development of the previous days. They regarded the thing, which looked a good deal like a big electric torch, with great interest.

"It is an electro magnet, using the 'infra rays,' "Mildred replied. Fortescue seemed not to have heard Ivanoff speak. He merely handed him one of the instruments to Ivanoff and one to McDowell. "Put on your suits," the girl ordered. "It is just possible that we will not need them, but it's best to be on the safe side." They saw that her hand trembled and that she and Fortescue were much wrought up.

"If this succeeds, on a small scale, we are on the road to victory," the Colonel said, in a low voice. "I dare to hope—but I am afraid to be certain. Come, we will go out."

They issued through the triple screen doors, five of them. They did not call the rest of Chin's crew, for the latter were all tired and were resting in the rooms appropriated to them. The Colonel did not wish to have too many spectators, either.

In silence the five, in their protective armors, advanced through the space in front of the house which was clear of ants. In silence, they walked steadily toward that deadly ring. Even Chin had not tried that. He had skirted that vast army. He caught his breath and shivered a little as the wide arc of it was drawn nearer by their steady feet. Already he was somewhat hardened to the feeling of thousands of insects swarming over the outside of his armor, trying to penetrate it, but these were millions. As far as the eye could see, they carpeted the ground. There was little movement among them. That was really the alarming thing. You felt that they lay there, waiting—that they were not crawling about without aim. In the broiling sun their black bodies glistened. Beyond and back of them where the dust-gray termites lay, a long, vague ribbon began to quiver. A large, metallic termite walked out to meet a very large black ant. They stood, head to head. Then the termite turned back. The ribbon, composed of a solid phalanx, fifty strong across a single line of it, began coming on steadily, around the edge of the black army.

Without a word the Colonel placed himself at the rear of the little procession. Mildred took up her place at the head.

They were within a foot of the black ring.

The termite column was advancing quickly from the rear.

"Now!" It was Fortescue's voice, sharp and commanding. "Press the button which is under your thumbs and use the ray which comes as you would a broom, brushing before and around you. I will do the same here."

Chin, Ivanoff and McDowell felt that their nerves were tingling. What would happen? Accustomed to walk in the midst of tremendous fumes as a protection, they felt as an ancient soldier might have done, with his gun taken away from him and bow and arrow in his possession, as a weapon against a dangerous foe.

They pressed down the buttons on their machines and a softly lavender color, in a large arc, lay on the ground before them.

That was all!

Fear, stark and horrible, flashed through them. They all had the same idea. The Colonel, worn with his vigils, had lost his mind!

The girl was in front. They thought of snatching her and trying to run.

Then they looked down at their feet and a cry escaped from every one of them.

There was a clear circle where the rays were falling. Not an ant could come within it and those on which it fell not only died but shrivelled and blew away. It was like magic. The ants trying to crowd into the circles of the ray were stopped as though by glass. Distinctly, they could be seen springing up against it and falling back, not only dead but burning.

Thrilled beyond words, the five marched forward and their feet trod on solid, clean ground. No longer the horrible crouching beneath, no longer the slipping and sliding on the grey-green liquid of their bodies. The ray cleared the path.

"Turn and look."

The Colonel's voice was solemn.

They turned, slowly continuing the sweeping of the ray and then a wild, exultant shout went up from everyone of them.

The termites were dying, by the hundreds, by the thousands, by the hordes. The machine which the Colonel held was greater in force than those which he had given them. He raised his hand but three inches and it was as though a hand swept through the swarming ranks and lifted them away.

"We have won, Mildred, in so far as the infra-ray machine is concerned," said Fortescue. "Now let us all return to the house for a consultation. Also, the news reel of the day has arrived. Let us survey the world for a breath while we take some nourishment."

CHAPTER VIII

"THE principle of the infra-ray has long been known," said Fortescue as they sat at the meal which McDowell had hastened to put before them. "Thank God, it will solve many of the insect pest problems which have done so much damage to crops. Now we shall not have to use chemicals in such profusion that many diseases are transmitted to us when we eat the products of our fields. Fruit, thank God, can again be ours, after we have brought back at least some of the birds."

"What a wonderful sight it must have been, in the old days, to see the birds flashing through the trees, and how wonderful to awake and hear a bird sing!" exclaimed the girl, her eyes shining. "The singing of our tame canaries is a poor thing, although better than nothing, but what a wonderful thing to hear a wild bird! When we have conquered this dreadful enemy, Mort, let us devote ourselves to the return of the birds to the world. At the north pole and away up in the Asian mountains there are still birds. Away down there in Patagonia is where the Government Survey got the robins, wasn't it?"

"Yes. There are, thank God, some birds left in the world. You are right, dear. We'll give our lives to them."

"But—look here, Colonel, are we through with our work on this awful situation?" asked Ivanoff. "Chester says that the news reel is pretty bad today."

Chester was their commanding navigator who brought the daily plane.

"I know that it's pretty bad," Fortescue replied, "for I was talking with Dr. Notzu this morning. He gave me an account of New York. However, let's see."

They took their precious fruit, which the plane had brought, up to the laboratory and started the reel, then sat in dull silence while the record unwound before them.

The skyline of New York was wholly altered. The old towers of 1930-60 were gone. The newer towers were gone. The great mass of the new Madison Square Garden, that enormous edifice which retained the historic name of a tiny square long since vanished—was gone. The sixth bridge—that which crossed the Hudson and ran out to the Chinese town of Newark—was gone.

The air above New York, for the first time in generations, was clear of traffic. In the outlying streets, away from the iron and steel construction, traffic jammed and fought its way. The centre of the town, especially, was a shambles. The crematories in Westchester were shown, the roads to them choked with the long line of lorries bearing the dead.

London next. It looked like the old pictures of the town, in the eighteen hundreds, for, with the great edifices down, there arose again the profile of the ancient stronghold. The buildings of stone and brick stood!

Panics in France. A devastated country, raw and waterless, the trees dead, not a hint of verdure. The four color process of the Kinetoscope, always used for news reel, graphically portrayed the grey, dead color of the land. Sometimes, in the solitary roads, a figure laid out in the rigor of death. Sometimes starving children wandered before the eye of the camera, dazed, stupid, practically dead, though walking. Shipping in the harbor of Shanghai next. Great boats, listed over,

dying of rust and disuse. Parts of planes sticking up out of the water. People wandering on the harbor streets. A man, dying, without anyone to give him attention, in a doorway.

A big ferry-house falling. That was Barcelona. Back to New York. Many views of the streets were shown, entirely impassable. Housing conditions impossible. Far out in the suburbs, in New Jersey, down along the Long Island shores, transportation at a standstill. Rails parted, trains falling to pieces. On the western plains a long train stalled miles away from a town, the passengers trying to walk in the deep sand, a flash showing the photographer falling, rising, and falling—the camera turned over to another person.

With a long sigh, those in that quiet upper room facing the sea, came back, as the reel snapped off.

"There are long, terrible years ahead while we fight down the hordes," Colonel Fortescue said, at last, "but we have made the first step. We have always gone on the principle that the insect had to be killed by poison, which it ate or which it breathed and we have persistently ignored its extreme susceptibility to other conditions, such as that of light, for instance. There are instincts which make for their destruction, as well as for their safety. No moth has ever learned to keep out of the lamp light which is death to it. The light vibrations which can be sustained by human organisms are death to the insect world. How I could have forgotten that fact and failed to take it into estimation, I do not know. It was Mildred who remembered it and suggested that we should try the development of a special infra-ray.

"You saw how it works. If it removes the termites as though it were a disintegrating breath, you may be sure that it is death to all insect life. The ray has no influence whatsoever on plant life. We know that from previous experiments. I haven't tried this ray on plants but I did direct it, today—at a distance, to be sure—against the pines and while I saw the ants fall from the trees by the thousands I saw no effect produced on the trees. I believe that it will be possible to put in operation such rays as will kill insect life, without harming birds or plants and without killing any of the beneficial insects of which some still remain. The cultivation of the lady-bird beetle which has been started again by our laboratories will no doubt do a great deal, for those wonderful insects will hold in check plant-lice and scale-eating insects."

"What is the program now, Colonel?" asked McDowell. "Now that we have this extraordinary weapon? I suggest that we use the radio-tel at once and order the manufacturing of the—what are you going to call it, sir?"

For the first time in many months a smile curved the fine, sensitive mouth. Most people, regarding Fortescue's tremendous achievements in the scientific field and having his austere and repressed personality before them, forgot that he was still a young man, who had yet to pass the second maturity period of thirty-five. In an age when the world had learned to help its young to prolong their youth, his mind had been so brilliant so early, that the Educational Board of New York, in which his schools had been situated, had made a special case of him. While most men at thirty were little more than starting on their careers, he had already behind him years of achievement. The smile which the group about him saw on his lips showed the real youth which underlay his great genius. He turned to the girl.

"The weapon shall be called the Mildred gun," he said. "Mildred ought to have this immortalization, for it was her acute mind which pointed out to me the path of success. She has one half the rights to it, as I have this day settled through the radio-tel with Dr. Notzu and he shall have one fourth of my half, for in the laboratory in New York he has worked untiringly on our other methods and it was he who helped me to isolate the animal acid, in the first place."

"Yes and all but one-fourth of my share shall be given to the Fortescue Laboratories," the girl said.

"As a man of business," Ivanoff stated, "I must say that the rewards of this great discovery of yours, Colonel, will be tremendous."

Fortescue waved this aside. "It is all for science," he said. "We have at last got to the place in the history of the world when we know that the scientist, in all branches of human need, is the true educator and teacher. The days have gone by, when a man like Goellet, whose wealth is a left-over from the centuries when wealth went only to the commercial worker, can be of any real force. This will discredit him. His lack of intelligence will be so clearly revealed that he will never be trusted again. I would not be surprised if the Council of the North American Continent would deprive him of at least half of his wealth, as they did to Rogers ten years ago, when he was proved to have amassed fifty million and not to have taken the slightest interest in any humanitarian enterprise. Men may be as selfish as they ever were and as ready to profit for themselves, but the steady pressure of public opinion is too much for them, and the laws help out public opinion.

"Mildred and I and Notzu will set the example of devotion, as we believe that it should be set, to the good of the world."

"Don't forget that we have to return the birds to the world!" said the girl. She leaned over to lay her cheek against the gaunt cheek of her lover. "You need sleep, Mort," she said. "Can't you get some? Go to sleep for a few hours. I promise that I will wake you when you say. Let me handle the radio-tel end of it while you rest. Ivanoff and McDowell will help."

Against his protests they forced the Colonel to stretch out on the couch in the main laboratory room, and then they went to the back of the floor where the radio-tel instruments were, and began to talk to New York, Berlin, Paris and London. From those various places, of course, the news would be relayed.

To Dr. Notzu in New York Ivanoff gave specific directions:

"Call Demetrius Janvier, my man of business, and tell him to arrange for the establishment of the Mildred ray factories throughout the Americas, in London, and in France, Spain and Germany. They will be the points of distribution. Let him arrange by radio-tel with our agents in other countries. Better start gathering hands for the factory in lower New Jersey at once—that marsh site will do, that we abandoned as a field when we took up using so many hoverers. Send a tel to the employees of the Bureau of Science. They always have promising young material ready for specialized jobs. Assemble as many as possible and radio-tel me tomorrow morning."

Mildred Sturtevant then took the radio-tel and began handling the financial end of the great affair. Like many women, her genius for finance was great and she had always been in charge of her own income since the time when she was very young. However, she now appealed to the Council to dissolve the administrative powers of Goellet over her fortune. To be sure, with the great wealth which the world-wide manufacture of the Mildred ray would bring, even that which her father had left her would be outdone, but she was determined to discredit the man who had insulted her lover.

She soon discovered that in the interval and while she had been lost to the world in her scientific absorption, Goellet had been backed into a corner by the examiners

who had been put on his affairs and they had already, in Mildred's name, appealed to the New York Local Council to demand a settlement.

"A great change in public feeling about you and Colonel Fortescue has come over the city," her informants told her. "The papers have been hinting that the statement which the Colonel tried to make on the night of the public demonstration in Madison Square Garden and which was choked off by Thomas Goellet, contained a truth which will soon be demonstrated. The facts of the case are not yet in the hands of the press, and. . . ."

"And they will not be for a time," Mildred replied. "The present news is enough. We have the weapon long waited for to fight the pernicious insect life."

CHAPTER IX

THE Colonel slept like a man drugged. Mildred and Ivanoff went in several times to awaken him but they could not arouse him for even a muttered word.

"He will have to sleep, that's all there is to it," the girl said. "During our work he constantly compelled me to rest by telling me that he was going to do the same, but gradually I found out that he did nothing of the kind. I doubt whether he has had more than ten minutes' sleep at a time for a week."

Something fell across her—a vague shadow from the window. She whirled and, for the first time in her life, shrieked and nearly fainted. Ivanoff, who was at the other end of the room, just passing out of the door, sprang back and took her in his brotherly arms, where, for a moment, she shuddered so that she could not speak.

"For God's sake, what is it?" he implored her.

She struggled with all of her might and soon was able to draw herself erect. Her first glance was at Fortescue, who still slumbered.

Then she deliberately walked to the window and looked out.

"I must be nervous," she said, "Hall-hallucinations; isn't that what people used to call those things they thought they saw? I thought I saw an ant as large as a big boy hanging on to the screen there and looking in with *eyes*—" she could not conclude but covered her face. Ivanoff was not surprised. He, himself, had felt the terrific strain of being surrounded, ringed in by these amazing insects. He had had the same illusion himself—that he had seen an ant, the size of a boy about ten years of age, looking in at him as he washed dishes for McDowell in the kitchen.

"I don't wonder that you're all unbalanced," he said, kindly. "I know just how it is. These are not really hallucinations. They are just optical illusions which our eyes present to us because we so constantly look at these insects and think of them. Look how poor Mortimer sleeps. I hope that when we get the ray factories started and some beginning is made on exterminating these terrible pests, that you and he can go over to the Himalayas and have a month of real peace. It is the only place in the world now, where insects do not swarm. Since the southern polar cap melted in the last century even that part of the world is full of them. Indeed, it was high time that something like the ray was found. I tell you seriously, Mildred, that if Colonel Fortescue and you—I can't seem to help speaking of him formally when I consider him as the scientist—if you two had not found this way out, I believe that we could, in a few hundred years, write *finis* to our race."

The girl nodded. He saw that she resolutely looked toward the window.

"I must not be influenced by a mere illusion," she said. "As you say, this Mildred gun will soon be making the world again a safe and sweet place in which to live. Oh—*wonderful*—to be able to stroll again in the fields and along streams without the protective devices that we have worn—how long is it, Ivanoff? I am forgetting my history."

"It is three hundred years since the insect world began to beat us, and that takes us back to 1950," he replied, somberly. "For one hundred and fifty of those years the human race has been like a besieged town, ever on the defensive, even being pushed a little more toward the inner defences. When I was up in the Himalayas last summer I revelled in the fact that I dared go with ordinary shoes, not with the heavy, chemically treated footwear that we have had to use, except right in the heart of large cities like New York and London."

"Well, we are going to make the world safe for men," the girl said. She stooped and gave a gentle kiss to the sleeping man. "Come on. Let's go down stairs. I want to overhaul some of my correspondence." They went down to the main floor where the letters were received on the let-dial. Mildred sat down and began speaking into the dial, after whirling it to the combined numbers and letters which would give the address. The voice, recorded on sensitive plates, would be sent from the forwarding station in Norfolk, which was the nearest large Let station, out to the various places in the earth where the directions sent them. This was a means of communication which was very much cheaper than the Radio or the Radio-tel or than the old telegraph, the latter a system mainly kept for emergencies, when battery trouble or other conditions temporarily interfered with the usual lines. Ivanoff left Mildred at work, for she had a large number of correspondents—mostly young scientists like herself, to whom she was anxious to communicate the inspiring fact that a weapon had been devised which would control the insect world and which would do away with the dreadful fallings of all structures built on the skeletons of metal.

In the kitchen and pantry, with Chin, who had come from the supply ship with some fresh vegetables, brought with difficulty, money and labor from the far north vegetable fields, the three sat and talked and talked, the springs of their happiness released in the light of the victory which they had seen.

The house was very still and after a time they noticed that the soft murmur of the girl's voice had ceased.

"She has probably fallen asleep," Ivanoff said to them, after they had listened for a moment. "What a girl! Nerves of steel. She got the same illusion that I did about a monster ant hanging to the window screen, only she saw hers away off upstairs and I saw mine right there at the window here. I told her it was no wonder that we were seeing ants that weren't there."

He stopped speaking as he noticed that Chin was looking away down the passage. From where they sat in the big kitchen, they could look along an angle of the corridor which led to the front of the house. "I thought I saw her shadow against the wall," the Scotch Chinese said. He continued to stare. Finally he arose. "I'll just take a look in at her," he stated.

Something in his manner aroused the other two. They were on his heels as he went swiftly down the corridor and turned the slight angle into the main hall. They looked into the room where Mildred had been.

She was not there.

They looked uneasily at each other.

"She's gone back upstairs to see if the Colonel is all right," Ivanoff assured them but his voice lacked conviction. Something ominous which they could not define lay on them. They ran up the two flights of stairs. The upper rooms, bathed in light, were perfectly still.

They checked at the door of the large laboratory and looked in. Mortimer Fortescue lay there, still asleep. Something in the absolute immobility of the figure struck them. With a bound, Chin was across the room and had laid his hands on it.

They shook the Colonel, they talked to him, they threw water in his face and they applied the strongest restoratives to his nostrils. They might as well have tried all that with a wax doll—but a doll which breathed. His breath, it is true, came so lightly that they were even in doubt about that for a few minutes, and it was only when Chin, who was something of a physician, reassured them, that they gently laid back the man on whom the hope of the world hung and stood off to look at him.

"Shock? Exhaustion?" McDowell queried.

"I don't know," Chin replied, "but I do know that the radio will send a demand for the best physicians in New York to come by hydro."

"One of mine, Chin," said Ivanoff, "I have the only planes that are treated for the acid, you know."

They went into the room to send out the call and suddenly McDowell said, "Good God, and where is Miss Sturtevant all this time?" He ran to the top of the stairs and called her name again and again. Silent and wide eyed they looked at each other.

Not a sound came up from below.

"Look in the laboratory for her suit."

It was again Chin who said this. McDowell came back in a moment.

"It's there . . . also the guns."

The silence of the house seemed to enfold them as with a terrible sweep of noiseless wings. They looked at each other.

"Without her suit. Without the gun. . . ." It was Ivanoff who, with a strangled shout, started to run down stairs and it was Chin who ran and flung himself on him.

"Wait, wait, you idiot!" he gasped. "Wait. Get your suit. Take the guns. Suicide without them—wouldn't live ten minutes—and we've got to have you now. Something's happened. . . ."

Frantically, they got into their suits, Chin forcing them to be as careful as ever. They snatched up the ray guns.

"Is it safe to leave him here helpless?" McDowell asked.

"Don't know—but got to do it," Chin replied. Then he suddenly checked. "Here—McDowell—you'll have to stay here. Yes you will! Don't you see? If anything should happen to all of us there would be no word sent out until the helpers come back from their trip to the mainland to hunt for the entrance to the tunnel there. We'll go. Radio over for them to return at once."

McDowell saw that this was best and while his old heart ached for the fine girl whom he had seen grow from childhood to full budding, he knew his duty.

Ivanoff and Chin went out, opening the ray guns.

As before, the black ring encircled the house, about two hundred feet away. Off at the side were the termites. They went swiftly all through the island, which was not large, avoiding the army and using the ray as they went to clear their paths of insects. They found one separate batch of termites numbering many thousands and put them out of existence. They swept the pine trees clear of the clinging ants and went to look down the shaft of the well.

Not an ant was to be seen on the walls, but Ivanoff looked intently at the stones of which they were made.

"If I didn't know that I was crazy I'd say that a ladder had been hung on this old curb and that someone had climbed down here," he said, pointing out the place to Chin. "Look there—and there—right down the side of the well—just as if someone had climbed up or down."

"Up *and* down," Chin replied, throwing the electric flash which he always carried down the dark cavity.

They drew back and regarded each other gravely.

"I don't know what you are thinking, Chin," said Ivanoff, "but if you are thinking the same that I am, *something* large and heavy has been carried or lowered down this old dry shaft."

They united their flashes, powerful and far-reaching. Not an ant was to be seen. Many a time they had tried this and had always seen thousands of ants there at the bottom, which was of clean white stones. They drew back. They shivered in the sweet air.

"We must go back to the house," Chin drew the other along. They still had the ray guns alight, which brushed into nothingness the loathsome life which swarmed before them, but suddenly both rays went out. The two who held them were so stunned that for a few moments they stood there vainly pushing at the buttons and then, with a shout, both Ivanoff and Chin began to run.

They ran for their lives as they had never run before. They reached the side door to the arbor and slammed it shut not a second too soon. The great hairy claw caught in the jam of the door writhed after them, but the door held and the terrible jaws bent and chewed off the member.

Then the shape from which they turned their eyes in sick terror, floated off into the shadows.

It went toward the well shaft.

CHAPTER X

THEY stumbled up the copper-lined walk and fell into the main hall. There the land party was assembled and this was the first thing which lifted the horror from their hearts.

"Did you see that?" Ivanoff asked, for they had all been huddled by the front windows.

Dumbly the young people nodded. Their faces eloquently reflected the strain under which they lay.

"Incredible!" said Wasserman, the German. He was a tall blond youth of extraordinary strength and agility. "I could hardly believe my eyes. It—some kind of a spider, wasn't it?"

"Yes, and how long would you say it was, Wasserman?" Chin asked. "You have the exact mind of your race."

"I saw where it flung itself against the arbor door. It stood up four feet, anyway."

"Run upstairs and radio that all landing parties must exercise special caution," Ivanoff said. He laid the ray gun down and looked with terrible eyes at Chin. "Both of them unable to do anything and these exhausted," he said to the other, in a bitter aside.

Chin's Mongolian eyes over his shrewd Scotch nose were steady.

"We will radio for Dr. Notzu to take the formula which he has and see that it is broadcast at once," he replied. "Have you forgotten that it was sent to him?"

After Wasserman had come downstairs, reporting that the Colonel was "sleeping," Ivanoff, gathering his wits together, called McDowell down and with everyone listening, he made a brief statement.

"It is time," he said, "that everyone should know exactly where we stand.

"Sometime ago I thought I saw an ant as large as a ten or twelve year old boy clinging with its claws to the copper screening of a window in the kitchen. It was gone when I looked and I concluded that I was merely nervous. This afternoon Miss Sturtevant

thought that she saw the same thing, clinging to the screening of a window in the third story. We both dismissed this as imagination. She then came downstairs to the Let Dial room to attend to some of her voluminous correspondence and I went into the kitchen, where McDowell and Chin and I sat for some time. Chin thought he saw the shadow of Miss Sturtevant against the wall, as if she were walking in the main corridor. We rushed out, could not find her and then, on going to the top of the house, we found that the Colonel had fallen into some strange kind of a coma.

"We went out with the ray guns, of which you have been told this day, and found no trace of the girl. We did find that the well shaft was free of ants and that there were none on the rock bottom, as there always have been; then, as we were coming back, and just after the rays had failed, we vaguely saw something running —no, rather, floating toward us. It was only a glimpse that we got of it, but it was enough. It was instinct that caused us to run. I do not believe that our lives would have been worth a dollar if that Thing had caught us, even with our suits on.

"Now, I want you all to open your minds to what I say. As soon as possible, I shall send for some more of the brave young scientific people of your organizations and I am sure that, with the cooperation of the men whom Dr. Notzu can round up for us, we can win—but I want you—" It was not like Ivanoff to stop and stumble over his words and Wasserman addressed him respectfully:

"Whatever you say to us, sir, will be taken in the right spirit. After what we saw of the creature which tried to attack you, I think I may speak for the others when I say that we would accept any statement appealing to a man of your perspicacity."

"Very well, Wasserman, then here's the thing, and I know that it is the same thing that Colonel Fortescue has been working on.

"He believed in a super-intelligence back of all this. He believed that the insects had evolved a leader who was able to understand man. With what we have this night seen I am ready to advance another idea. You have all seen the great size to which many of these ants have attained and you saw what that thing was like tonight. The bees have long had the secret of determining size, as they have of determining sex. The ants have always been able to control both size and sex, and to handle other problems of life which, to this day, elude us.

"With the evidence before us of the gigantic hairy spider who tonight either neutralized our rays or else, directed by another intelligence or by its own intelligence, saw that the weapons were out of commission—that creature convinces me that there is a leader or perhaps I should say, leaders among the insects.

"I believe that in some way Mildred Sturtevant was lured to the door and was abducted by one of them."

"Oh, not by that *thing!*" cried one of the younger scientists.

Ivanoff held his face steady with an effort.

"I don't know," he said. "We don't know. It could do it. I fail to see why it was that she could not shout for help—but the fact remains that she didn't. For tonight, nothing is to be done except to wait for the physicians who ought to get here in another hour at the latest. We can't use the fast planes, for my hydros are the only ones which have been so carefully treated with the anti-acid that they are safe. I shall probably call for volunteers to explore the well shaft somewhere around midnight. Have you all had something to eat? Yes? Well, then get some rest. Heaven alone knows what is before us."

"I beg your pardon, sir," said Wasserman, "but how about following the trail right now? It seems to me that every moment must be full of danger for Miss Sturtevant."

"It is," Ivanoff replied, solemnly, "it is, but without the ray guns we should not be safe a moment and nothing would be gained. I have sent for Dr. Notzu's assistant, who also brings the formula. No doubt it is possible to reanimate the guns. He, also, will be here soon. If we could bring the Colonel out of his coma and have the advantage of his keen mind, if only for a few minutes, that would help. Go, all of you and rest. Relax. Your youth, strength and courage may be taxed to the uttermost soon. We have sent for more of your associates, as I have told you."

Trained in the obedience, which is so superior to anything which the ancient soldier knew, they instantly turned away and went to their rooms. Ivanoff and McDowell and Chin went softly up the stairs, thinking to look in on the Colonel but they heard the drone of hydros and hastened to turn on the great lights which had been installed in the front windows, behind the sheltering screening. The first efforts to put them on the roof had been thwarted by the stalling of the connection in some way which they had never been able to understand.

No nightmare figure was at the landing stage or the famous delousing box. They called to the small figure that they saw to come right up and not wait and soon he and three other men came into the lower hall, to which they had descended.

In a few brief words the news of the last tragic hours were given to the little scientist and they all went back to where the patient figure of the Colonel still lay. The eminent physicians who had come racing down the coast at this hurry call looked with intense interest at the place in which they found themselves, for news of the real purpose of the Colonel in leaving his New York laboratories had leaked through all the learned professions.

They stood looking down on the patient for an instant and then, opening the bags which they had brought with them, they began their examinations. Contrary to the old and silly idea that one physician, alone, must have charge of a case, they worked in entire harmony, each assisting, each investigating. Ivanoff went to the window, where that phantom figure had appeared to Mildred and tried to lift his heart from the dead, dull sensation of despair. He had never had a sister and he was greatly attached to the girl, who had been his friend and playmate all of her life. He tried to keep his thoughts away from the contemplation of her wound in the hairy arms and claws, the very sight of which had weakened his manhood in his breast, and felt that unless he could get some action he would go mad.

Finally the physicians, who had been murmuring to each other, turned back to the men who had waited wretchedly for their verdict. Dr. Notzu had been in close conference with them for a quarter of an hour and it was he who spoke.

"My dear *confrères*—since I know all that has passed here and all that has been in the mind of my revered comrade here, I have suggested to the physicians something which they finally agree with, although it would not have seemed plausible to them at the first."

Notzu spoke English with entire ease, but his agitation was now so great that a certain oddity crept into his use of the language which was almost his mother tongue.

"This condition of my friend does not resemble anything familiar to our learned physicians here. They stated, at first, that they could not understand it. I then remembered the events of this afternoon and I suggested to them—that my friend is paralyzed by the

poison which certain insects are able to inject into a body.

"You have seen it. You know that the wasp can insert a sting which throws her victim at once into a deep coma, but a coma which does not end in death, unless she wishes it.

"Some of the reactions which we have found here are the same and the absolute immobility of my friend has in it something more peculiar than coma. In coma there is still a little muscular reaction. There is none here. The respiration is lowered so that it can hardly be detected and yet—the evidences of sinking are not here. I have seen some of our psychophysicians produce trance, in the case of treatment for criminal instincts, which resembles this state.

"I now ask you, what opportunity did any insect have to get in here. I—" the little man hesitated, peering at the physicians, "I have told our friends something of what they may expect—and I shall speak freely. The insect which produced this state injected the paralyzing poison into the fifth vertebra of Colonel Fortescue could not have been of small size. On his back the puncture can plainly be seen. It is large. The puncture is deep. An insect which could strike in to the depth which this one did, would be large enough to be more than seen. It could be a very dangerous opponent. I suggest that the house should be searched."

Ivanoff was staring before him, preoccupied.

"Wait—wait a minute, Dr. Notzu—" he said. "Let us consider what we are doing. Do you know any treatment for the condition which you described, so produced?"

The physicians consulted and one, a large and grave man, spoke:

"Such a state is, I regret to say something with which medicine has never had to do. I—my colleagues—do not know of a remedy, save that which is used for general coma, for sinking, and for trance—though even for the latter condition we still have little base of diagnosis."

"Then the condition under which the Colonel lies is extremely dangerous," Ivanoff ruminated. He and McDowell looked questioningly at each other. An immense despair was taking hold of them.

"I see," Dr. Notzu slowly pronounced. "I—see!"

"If we find this—creature—we may have to compromise with it," Ivanoff said. He struck his forehead with a sort of despairing, humorous gesture. "Dear God—that we should come to talk of such an impossibility. But, there it is, gentlemen. In the Colonel and in the missing young woman our enemy have two of the most valuable hostages in the world. We cannot move against them until we have done something about these two people."

CHAPTER XI

FROM the window, that fateful window where Mildred had had a vision of terror, there came a resounding thud. All the group who stood about the still figure of Fortescue turned swiftly. Again there was the thud, as a large creature the size of the extinct crow flung itself heavily against the wire screening and flapped away to again repeat the action.

"A bat—as I live—the long vanished *Chiroptera*—" Dr. Notzu went close to the screen and looked with the utmost intentness at the creature which was flying a short arc about the window and every now and then thudding against it. He uttered a shout of astonishment. "Look-look, Ivanoff—McDowell—a paper in its claws—a large piece—with writing on it. Come, if I am not mistaken—" he dashed out of the room and down the stairs with all the rest of them at his heels. As he emerged into the screened arbor, the bat swooped swiftly almost to the ground. Then it was gone, darting away to the pines, and there on the ground close to the arbor door was what they saw, a large envelope through which a string had been threaded.

The little Japanese threw up his hands with a gesture of despairing resignation to the happenings of the incredible, opened the door and brought in the envelope.

The moment that he saw the writing, Ivanoff reached for it.

"Mildred—it's from Mildred!" he tore it open and drew out many sheets on which there was close writing. They saw his face blanch, and then he turned toward the house, saying hoarsely; "Come on, we have got to sit down."

"I will attend the Colonel while you peruse this communication," one of the specialists said.

"No—wait," Ivanoff was running his eyes over the writing. "There is something here about it. He'll be neither better nor worse for being alone. Wait. This is from Mildred.

"Dear Friends," she starts off, "I am writing this letter under such amazing conditions that I can hardly bring myself to believe that they are real—and yet I must, for I have only to raise my eyes to see such a sight as would never be conceived of even in the wildest dreams.

'I am allowed to write all and what I please, and so I tell you that when I was sitting at the dial, getting off my correspondence—and I ask myself every moment what you must have suffered when you found me gone—I was suddenly aware of a slight movement behind me. I had my back to the door at the dial, you remember. The next moment something like the softest silk I had ever imagined fell across my mouth and nose. It was saturated with a powerful perfume, somewhat like the rare musk which is now almost priceless. I opened my mouth to call for help and found that I could not utter a sound. The odor seemed to deaden my vocal chords. The next—or the same—instant something hard as a steel band came around my waist and I felt myself lifted and carried. I could not see how this was accomplished and I passed like a flash through the screen door, which I distinctly heard latched behind me. The door in the arbor was open and that, too, slammed behind me.

" 'In this first moment, for it was no more, I thought that a piece of machinery was moving me. There was that rigidity in the hold on my waist and I could vaguely feel behind me something hard and unyielding. You understand that I have only the haziest impression of all this. The first thing I knew I was being taken down the well shaft by a ladder made from something like vines. I was held with my face to the wall and still could not see how I was carried. I struggled but soon knew that it was entirely hopeless. There was not even the slightest yielding in whatever held me, and, as I have always been accustomed to machinery, I was sure that I was held by an iron band in a piece of mechanical work and my mind was filled with the wildest conjectures. For a moment I even thought of Goellet's theories and believed that I was about to solve the mysteries of the fall of iron buildings through finding a human agency—that which was kidnaping me. At the foot of the ladder I was instantly and at the most extraordinary speed, carried forward through a passage which was just large enough to admit my body. A dim light was in this passageway—a sort of phosphoresence, which glimmered along the earth walls. The passage pointed downward.

" 'Ah, Ivanoff and McDowell, I know too well what has happened to Mortimer! Before I go on, let me tell you to look out for a great female wasp which is somewhere

in the house. *Don't harm her.* It is only from her that we can secure the antidote for the poison which Mort has received. She will obey only—but I must go on before I say the thing against which my pen fairly hesitates. Remember that, though. Do not harm the wasp. Get her some sugar dissolved in water and some raw beef or give her some of the lamb broth cubes. It is a good thing that I sent for a little meat, terrible as the price is, for Mortimer, knowing how he would be exhausted——

" 'Well, let me go on with this. Forgive me that I seem to write at random. I have known such fright and I have wept so much—yes, for the first time in all my life I have learned what tears are.

" 'I was brought at last to a large cave and while I was still held about the waist by something which I now perceived to be black, thin and hairy and while a terrible suspicion was taking hold of me, I was slowly turned so that I might view the place and you can imagine that it was something extraordinary to make me even for a moment, forget the fact that my feet were off the ground, that I was held as in a vise by I knew not what and that I was, I was sure, in the greatest possible danger.

" 'This cave is the place where I still am and I may as well take the time now to describe it. The scientist still persists in me and although I hope and pray that I may be able to die before the fate with which I am threatened reaches me, I want to preserve this picture.

" 'Fancy yourself in a cave which is about twenty feet square and which is as high at the central point. It was originally a rock cave and has been deliberately enlarged. In a corner, falling into a fluted basin, made by the drippings of the water, is a thin trickle of sparkling, ice cold water. I have never tasted anything like it. Below the first and small basin is another, chipped out of the rock, quite large. I wash in this lower and drink from the upper.

" 'All along one wall there is a mosaic so beautiful that I am never tired of looking at it. I have never seen anything so lovely. It is formed of hundreds of hemipterous jewels—in other words, the hard backs or wing cases of many members of the beetle family. A shelf of the rock, partly nature and partly nature assisted, is of the pearly white of the rock walls. I will tell you afterward what is on this shelf.

" 'The couch on which I sit and may lie is composed of literally thousands of sheets of the finest, gossamer silk. It is high enough so that it is comfortable for a seat. There are exactly forty silk pillows which feel like eiderdown when I put my head on them—I shall never forget the feeling of the precious eiderdown pillow which is kept in the museum in Nome—these are just like that one.

" 'Beside this silk couch of mine there is a rock, the top of which has been made as smooth as glass. This is my table. On it there are two loaves of bread, of the famous Dakota wheat, three pears—actually—dried figs, and smoked fish—

" 'The air is fresh and sweet and the place is well lighted. Shall I tell you what all of this is? Oh, my dear, dear friends, pray that God, in His mercy, will take my life soon. *This is my bridal chamber.*' "

Ivanoff's voice ceased. All in the room were stricken dumb. The man passed his hands over his face, struggled for control, and read on:

" 'It is some time later. I have been lying down here, half unconscious, I think. I am not ill and I am cared for with an attention that is beyond words. But—oh, *by what.* How can I make you see what I see, what my shrinking eyes are forced to behold?

" 'That shadow on the window, Ivanoff—that was no illusion. It was a reality. That creature exists. He is my jailer. His relatives, not as large as he, but fearful to behold, assist him. Their ministrations are so terrible to me, that when they approach I shriek and run like a madwoman. *He* has forbidden them to come in. I can see them, in their strange, human attitudes, out in the passage and I know that one spring of their thin, machine legs would land them on me if I should try to do anything except take care of myself. I tried to use a sharp stone on my wrist—but I'll not do anything again to bring that terrible crew down on me.

" 'And yet—oh, how strange is the human heart. I have it in mind to pity the creature. I have been writing in hysterics. Forgive me. I will try to remember the scientist again.

" 'When I was slowly turned around in this cave and saw this couch, so dainty, with its many pillows, the mosaics, the water, and the soft glow of light which filled the place, I was sure that we had been all wrong and that it was really some human force with which we had been dealing, but when I was gently set down on the couch and whirled to look at how I had been carried—

" 'No, I cannot explain that moment. The creature vanished. It was half an hour by my watch before I could calm myself. Then I heard tappings and to my amazement found that it was in the Morse which is used with our antiquated telegraph system, something which every child among us learns, more for amusement than anything else.

" 'This tapping kept calling my name and with a wild throb of my heart I tapped a reply with my belt buckle on the rock, thinking that I listened to a rescuer, but when I received the reply I sat, petrified with horror and astonishment.'

CHAPTER XII

"'I AM not sure that I can repeat what I heard that first time. Off and on I have had this repeated to me and I will try now to give you what I think is the gist of it.

" 'This is the chief, this creature.

" 'He is an ant, *four feet high.* Take our great magnifying glasses and look at those awful ants of many inches which we thought were so awful and you'll never have even half the knowledge of what this thing looks like. He can read this, and will! Yes, that is a thing which I have found hardest to believe but I have had it proven to me. He cannot speak. He has no voice, except a sort of squeak, which he can cause to produce the Morse code, when he wishes.

" 'He is the descendant of a long line, in which size and intelligence have been specially bred. He is the Prince, the head of the race by reason of having gained the most of those two qualities. He has a brother who is two feet high and a host of cousins and other relatives who are about a foot high. It was he who abducted me. He unlatched the door. He knew where we all were. He has a trained bat. It is the bat, I am told, who will take this letter.

" 'He let in the wasp. I don't know how large she is but I shudder when I think of her attacking Mort. I shall save him—I shall—even if I have to—do what I am supposed to do.

" 'All that we have dimly surmised about the war of the insects is true. He—I do not know what to call him—calls himself the Prince, so I will, too.

" 'The Prince declares that he will allow man to live on the earth if all cities are destroyed, if machines are abolished, if electricity is never used again. Crops will be unmolested to some extent. Size of insects will be kept about as they are now, with the exception of the ant race. The Prince declares that in ten generations he will develop—I cannot write it. You can guess. His

descendants—*and mine*—shall rule the world, he says. He—he declares that in taking me he has not been ruled by revenge, and I do not think that he knows what vindictiveness means; nor fear—nor pity. He is a bundle of terrible intelligence. And vanity. I have already told him all that, in these strange conversations in which we tap away, I in this place and he somewhere out of sight.

" 'This place was arranged for me. He chose me because of my health, because I have courage, because, for a human, I am perfect in every particular. A little, shrivelled old ant not more than half a foot high, who is grey and black because he is so old, is the chief scientist for the Prince and he has assured him that the combined race of ant and human is the coming thing.

" 'If I am not mad I never will be, for there have been hours in which I have fought with the walls and been so physically ill that I have been struck down unconscious, but that which prevents me from allowing any of this to hold me long is the fact that when I regain consciousness, it is his eyes, with their long lashes and their haunting beauty which look into my eyes and his awful, awful claws which are throwing water gently on my face.

" 'I have told him that I will not consent to what he asks, but—I don't know. Mortimer—that is the thing, first of all—and the next is, my race. I believe that it can win, and I have told the Prince so.' "

Ivanoff looked up at the circle of faces. He reached out his hand for the glass of water which the little Japanese pressed to his hand, and then turned the closely written pages and continued:

"This couch is made from caterpillar silk. I am told that very large ones have been bred and are used as servants, and for the production of this silk. It was that material which was used to gag me when I was stolen. On the shelf, which I wrote about before, I found very beautiful toilet articles, soap, powders. I asked in astonishment where they came from and am told that they were brought from the nearest town, that little place along the coast, you know, from the jeweler's there, and also from the house of the only rich person, where there is a young girl. How amazed she must have been to find her toilet table ransacked. I shudder when I think that a gigantic spider has touched these things and yet I use them.

" 'You may wonder how this place is lighted. I was amazed at the light, myself, which is like our diffused lighting effects. They are a bug, these lighting effects! Thousands of them bunched together and hanging from the ceiling. Once in every four hours there is a period of a quarter of an hour when the place is dark, when this mass which swings gently like a lovely chandelier, flies away and a new lot come in. The first time that this happened I thought that I should lose my reason, in the darkness. I fancied claws and hairy, creeping

. . . I was sure that we had been all wrong and that it was really some human force with which we had been dealing, but when I was gently set down on the couch and whirled to look at how I had been carried . . .

things all over me. Since then there has been a small cluster over the couch, and I have grown fond of these insects, although very large and although I can see their unwinking dark eyes looking down on me. They are quick to respond to attention and once in a while a dozen will detach themselves from this special light of mine and sweep softly around and around my head, and when I put out my hand two or three will alight on it. I feel no repugnance for them, but admire their grace and beauty. The Prince tells me that by breeding they had produced this insect, an extension of what I believe used to be called "a lightning bug," and that the light will remain steady for long periods. Smaller insects, originally from the sea, are used to light passages such as that through which I was carried.

" 'This place has been prepared for me deliberately. The staging of these very large ants on the island was done deliberately. The Prince says that the screening of the house was "a futile and pitiably silly thing" when all he or any of the large ants had to do was to use their claws with which to open the doors.

" 'The manufacture of the acid which eats into all metal has been in the making for generations. The only people who understand the method which impregnates the ants with this acid are the Prince and his family. He has adjutants, about half a foot tall, in London and in other parts of the world. They laugh, he says, at our radio; he says they have had that for hundreds of our years—as long as the history of the ant race is known—and that he can send a message to London through short connections which run up to Alaska and out across that narrow strip of water and so on down the other side—*in half an hour.* I asked him for proof of it, and in one hour, which allows for the message back, he told me that an epidemic of typhoid has broken out in London, due to the broken water mains and sanitary wreckage.' "

Ivanoff dropped the closely written sheets as one of the specialists exclaimed:

"Why, that report has just come through!"

Overcome, Ivanoff dropped to a seat and covered his eyes with his hands. "What are we to do now?" he groaned. "With Fortescue at the mercy of this thing that is in the house—and it will not help him unless this Prince thing agrees—and he'll agree only if Mildred agrees to marry——Oh, it's unthinkable!"

Dr. Notzu, much affected, picked up the sheets of paper and began to run them over.

"Our ant Prince provides her with writing paper and pencils," he murmured, as his eyes continued to peruse where Ivanoff had left off—"H-m-m—he shows a persistent desire to talk with her. He declares that it is science to which he is devoted—that the race of man is wasteful and cruel, needlessly and very stupid, yet has its good points. He demands a capitulation from the heads of the various Divisions of the earth—H-m—she says that he puts no embargo on what she shall write and that he demands only that she shall state that he will soon make it clear that he is the absolute owner of the earth and that man shall live, in the future, only at the pleasure of his royal line. She warns us to allow the bat to bring communications, but that she will not be allowed to receive any."

"There is one thing which must be done at once," Ivanoff said, springing up, "we must find this wasp and ki——"

"But you can't do that, my impetuous young friend," the Japanese reproved him, sadly.

The oldest specialist turned to go up the stairs. "I'll at least attend the patient," he said, and then he, like all those near him, gave a gasp.

Strolling out from a small room in front of the kitchen came a wasp.

She was about two and a half feet long. Her elegant, slim waist was laced with a yellow belt and her head, pivoting in its socket, was a dim and delicate green. Her lacelike wings were folded back and her whole air was calm and proprietary as if she traversed the halls of her own home.

They stared at her and it seemed to Ivanoff that a glint of humor shone in the strange, three cornered eyes. She continued to advance and they fell back before her. She went to the foot of the stairs, and at one jump lightly and accurately landed on the top step. Ivanoff, with a smothered cry, started up the stairs after her. She turned, as swift as a shadow and stood, menace in every line of her.

"Back, back, Man!" Dr. Notzu said, in a low, sharp tone.

"But she's going up to Fortescue's room!" Ivanoff protested, hesitating.

"Come back. I have a reason."

Slowly the other obeyed. The wasp, with one stretch of her legs and a slight lift of her wings, went up the second flight of stairs.

"God, man, what are we to do?" Ivanoff was nearly frantic. "Call the students. Let us at least go to the help of that stricken man, lying there——"

"The physician is with him," Notzu replied. "And I have an idea." His eyes shone behind the large spectacles without which no one had ever seen him. "Listen—I am no authority on insectivera—it is so long since that branch has been specialized that no one pays any attention to it except its students—but I know a little. That wasp will have to lay eggs in a very short time. I believe that she has gone to find a place now. If she does—if she does, Ivanoff, we may have a chance with her."

"A chance? What do you mean?"

"You have forgotten or perhaps you never knew, but it is a fact that the insect has one dominant feeling—that is to say, a mother insect has—which is, concern for her young. Many of these insects have race histories in which the production of the next generation is the one and only passion, compared to which self-preservation is nothing. If she lays her eggs, she will have to have special food for the grub—she will have to—but we need not wait that long. The mere taking possession of her eggs will—may—drive her back from all her trained intelligence to the primitive urge. We shall see, we shall see. Go, my friend, call the students to come very, very quietly. Let them put on their suits. We shall need something—where are the household stores? I think I remember——"

Ivanoff was, without waiting to hear the rest of this disjointed speech, leading the Japanese toward the small room from which the wasp had emerged and the little man at once pounced on the dozen new brooms which were wrapped and standing together in a corner.

"There!" he exclaimed. "I happened to glance in here and thought that it was silly to send all these implements to a house where two would have been ample—just because so many things were sent in dozens. Well—do you see, these are our spears. A dozen of us can pin that big wasp into a corner and hold her and yet not hurt her, until we get at her eggs. And when we do that I think we can make her understand—I *hope* we can. Everything we do is so without reason."

CHAPTER XIII

"THE bat is banging against one of the windows, Professor," said one of the students.

Everyone in the house was assembled in the hall. They looked toward the big window in the front and saw that the bat had another envelope in its three

cornered mouth. As they looked, it flew past their vision.

"It has gone to the door in the arbor," Dr. Notzu said. "We shall have to see what it has."

"Look out! It may try to get in," Ivanoff said.

The bat, however, did not stay but the moment the Japanese appeared in the arbor it flew away, leaving the letter.

"I see that the ant army is very much nearer the house than it has been since I have been here," Notzu said. "Not twenty feet away, in fact. They must have just deployed and come up, for the rear ranks are still moving. I feel that the crisis is approaching. Here, this is to you," and he handed the envelope to Ivanoff, who took it and in a moment began to read aloud.

" 'I am told that the house is to be besieged soon, and that, while a great many ants will die, they will be able to get through the copper. *He* believes that a new food which has been arriving for the last week and fed the army will so change the acid that it will bite through copper. I have no heart or time to write much, except this:

" 'I have agreed to give him a month in which to change my mind. He says that the marriage methods of our race disgust him and that he either has to have the consent of my mind to this union or that he will kill me and select another mate. In the meantime, the utmost concession I can win from him is that none of you are to be pulled down by the termites. You will be driven to the top of the house. He warns you to kill few ants, and above all, not to disturb the wasp as she will refuse to do anything for Mort if you do. I know that she can bring him out of the condition in which I am told he lies, but I do not know how and I do not know how she is to be told to do it, but for the sake of any affection you have for Mort and for me, Ivanoff, if some messenger, no matter how strange, comes with an envelope, do not oppose that one, for that will be the message that will tell you how to tell her to undo her work.

" 'On this day I have at last forced myself to meet—him—face to face. I have forced myself to look steadily at him. I have allowed some of his relatives to be in this place with me. I am already dead. Feeling has left me. I look on this place and on these strange creatures with which I now communicate by a series of fantastic squeaks, as if the real "I" or ego were somewhere else—as if I were dead and looking on. Give my love to Mortimer. Tell him that he must forget that I ever lived. There is no hope.

" 'The intelligence of this being is something to which I am slowly becoming accustomed. I watch him restraining his stupendous powers that he may not alarm me. I see that he compels these others to move slowly and quietly, so that their wild leaps shall not torture my nerves. Food arrives and is brought. I have forced myself to eat and I have been strangely touched by the fact that, because I feel such repugnance to food which they have touched, it is brought to me in wonderful and beautiful baskets of leaves. And yet the Prince, how delicately he jeers at me. Only today, he said: "Why, your race has been eating our leavings since Adam was in the First Garden! We ate your vegetables, we ate your fruit, we got into your meat, we invaded all your storages—Why so dainty, after all these years?"

" 'Ah well, why, indeed? The fruit which I eat is brought from God only knows how far or how many insects have touched it, carried it, had it. It is fruit which comes from far, such as we have only at very great occasions, now that fruit is almost extinct in the world. The Prince assures me that as soon as he is acknowledged he will again allow wild fruits to grow. In this respect his own race has suffered in fighting ours, for they delight in fruit.

" 'I do not know why I am writing on and on, for I was told to hurry. It is, perhaps, because I feel that this will be the last time that I will ever have the happiness of even writing to one of my own race. I feel that I am dying—and that I must take a farewell.

" 'Ivanoff—tell Mortimer that I—send him—all my thoughts.' "

There was not a dry eye among those who listened.

"So it's war, is it?" murmured Notzu. "War." He assured himself that the screen door was bolted from the inside, a precaution which they had taken since the discovery of the giant ant's existence. "The hydros should be here with the extra large infra-rays, soon. And don't forget that all over the world the ray gun, the Mildred gun, is getting ready to do its work. That fading of the ray was a fault, natural in the first guns prepared. The next that arrive will surprise you."

"And they will be needed," said Ivanoff. "Oh, to get at that Thing! To rescue Mildred. You see, Notzu, we are more like brother and sister than anything else. We went to school together, we trained in the gymnasiums together. Mortimer and Mildred and I have been inseparable. I was happy in his happiness and hers. I feel that I shall never know what it is to have this fever out of my veins, until I have killed that thing."

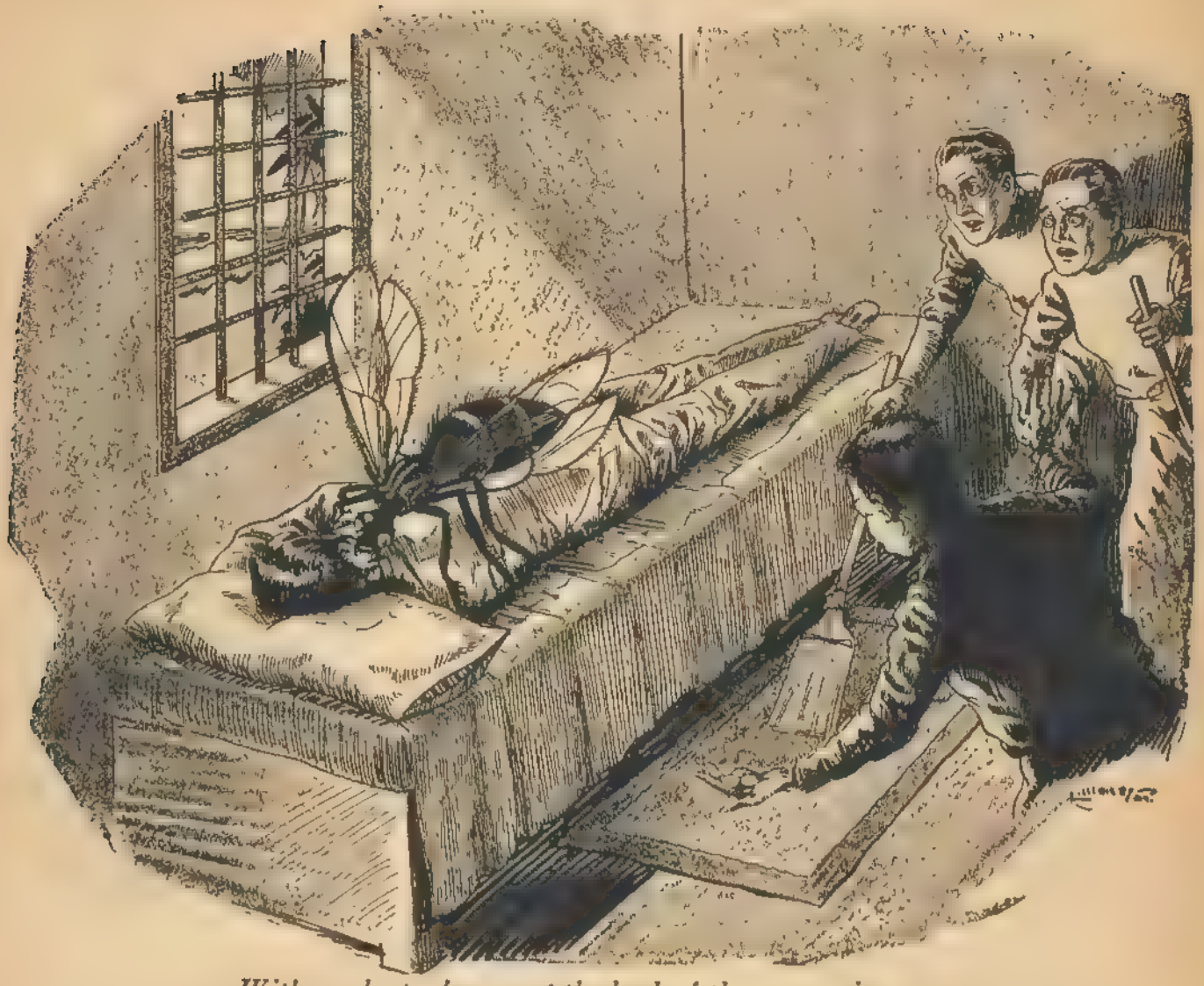
"Banzai!" exclaimed the little scientist. "That, my dear young friend, is an ancient old word of my country. No one knows what it means and it is most archaic. But—we Japanese say it sometimes and it seems to come from the depths of the consciousness. It is always an agreement. So I say, that until we kill that Thing I shall not be able to sleep. The only thing—" he drew nearer and looked up into the grave face of the other, "I fear much that the young woman will be killed before we do that. There is no way, whatever, that we can rescue her. Keep that thought at hand, my young friend. Deluding ourselves with hope is the worst form of futility. And now, collect the students, warn them of our procedure and all follow me very carefully upstairs."

The procession up the stone stairs of the house was as silent as it was possible to make it. Thanks to the careful physical training which people are given, each was able to proceed steadily without hardly any noise. Each carried, for a weapon, a broom, the new corn standing out stiff and strong.

There was the second landing. They had seen the wasp leave that. Dr. Notzu went on upstairs again. The frightened face of the physician who had gone up the stairs just before the wasp had come out of the downstairs storeroom, looked out from the door. The Japanese motioned to him to be silent and with a pointing finger and uplifted eyebrows enquired if the insect might be in the room behind him. The physician shook his head. The Japanese then passed along the hall, past the other laboratory rooms, to the end, where there was a dark little room, which they had surmised had been used for a photo-developing place, when they first saw that it had its one window blocked up. It was this room toward which Dr. Notzu crept. His knowledge of insects had led him to the belief that the wasp would choose this one place in which to lay eggs, since it would resemble the darkness of the burrow in which that event would usually occur. The door was ajar.

Very, very gently, the Japanese looked in and then, with an agility odd in one so slow moving, he sprang back just as the wasp, with an angry buzzing, came out.

They acted in unison, as they had planned. They received her on the ends of the brooms, which annoyed and angered her but did not hurt her. She tried to take



With one leap, she was at the back of the unconscious man.

one of her long jumps or half flying leaps over their heads and they spatted her with their brooms until they beat her down. It was fifteen minutes of hot work, before the doctor got into the room and came out in five minutes, triumphantly, with two strange looking eggs in his hands.

The wasp hurled herself at him, but the others kept her off with the brooms. Then the Japanese raised his voice and called to the physician to stand aside while they got the wasp down the hall. Some of the students ran ahead, so that the angry insect might not charge in on the unconscious man, and finally, they were all in, the physician, very pale, staunchly standing his ground, weaponless, by his patient's couch.

"Now," said Notzu, panting," comes the war tug. How to make her understand. Keep your brooms ready and hold her and let us see if I can—" In his usual way, he broke off, impatient at having to finish the thought, the conclusion of which he saw so clearly, and with that he showed the insect that the eggs were intact. He touched them delicately, with the fingers of the other hand. He motioned toward the unconscious man and with the hand holding the eggs, made a motion of throwing.

The wasp beat her wings and produced something so like a cry that they were all startled. The Japanese stopped the swing of his hand. He shook Fortescue's unconscious form. He called him. He shook his head. He mimicked despair at getting no return. He held out his arm to the wasp with imploring gestures. Perspiration was running down his face, but still he kept it up.

The wasp was slowly swinging her green head. It seemed to Ivanoff, the nearest to her, that he could even see an agony of struggling intelligence come on her. She advanced slowly toward Notzu, hampered by the brooms, which pressed her, ignoring them, suffering them, while she made something in her attitude indescribably touching. She begged, without words. She implored. She promised.

They saw that the Japanese was trembling from head to foot and that the physician, standing perfectly still, was rigid with alarm and the tension of the moment.

Suddenly the small form of the Oriental stiffened with resolve.

"Set her free," he said, in a voice which did not sound like his own. All those who heard him knew that he had come to a desperate resolve. They took away the brooms. The wasp cautiously, putting her many feet hesitatingly to the ground, crept forward. She reached for the eggs. The Doctor put the hand holding them behind him. She crouched. Every line in her elegant body spoke.

"Oh—be careful, be careful—you will crush them!" she seemed to say.

As if in answer to such an actual cry, he opened his hand, very gently and allowed her to see that they were there, unharmed. Then he moved his hand toward the

unconscious man. His eyes gleamed. A fire shot from them in which the immortal soul of Man appeared. His hand pointed. The wasp gathered her legs under her.

With one leap she was at the back of the unconscious man.

The appearance of the gigantic insect thus mounted over the helpless form was so awful that the physician recoiled, shutting out the sight with his shaking hands and even the scientists, chosen in youth for their stern character, minds and steel nerves, even they backed away from the spectacle. The Japanese, his hand and arm rigid, stood his ground.

The wasp slowly bent her sinister head and a shuddering sigh went up from the room. It was almost more than human flesh and blood could bear, to stand there and see it. She opened her formidable jaws and pressed them to the nape of Fortescue's neck. For a long moment the tableau held and then she raised her head and crept off the couch. She stood before the Japanese, pleading in every line of her.

He motioned that they with the brooms should stand out of the way. He went out of the door. He went down the steps. The wasp took each flight of stairs in one long, graceful arc and waited for the man who still held her eggs. She followed him to the triple screens of the front door, down the arbor to the door and as he reached out and gently placed the eggs on the ground, she snatched them up and, striking the ground a blow with her legs she sailed away with them, hugged to her breast in her two front feet.

The Japanese shut and latched the door and when the rest, who had followed at a distance, came down to him, he was too weak and sick to walk without assistance.

"I am not a young man," he said, as Ivanoff helped him up the stairs to the laboratory. "It was a great strain, and even now it may not—"

But when they went in, he cried aloud with delight and ran to embrace his friend—for Mortimer Fortescue was sitting up, leaning against the arm of the physician and color was already beginning to appear in his face.

"He doesn't know a thing of what has happened," the physician said. "But I can tell you that the injection of the antidote into the nerves at the nape of the neck was one of the prettiest operations I ever saw in my life."

CHAPTER XIV

IT took two days to bring Mortimer Fortescue to such strength that he would dare to take up his work as the generalissimo of the terrific struggle which was about to take place. Although, during that time, knowing that his promised wife was in the hands of the enemy, his sufferings were almost unbearable, his cool scientist's mind brought forward some relief for himself and for Ivanoff, her comrade, and for the others who thought of her with such apprehension.

"I do not believe that the Prince will harm her," Fortescue told them, as they feverishly worked with the appliances and materials which were continually being brought by the big hydros. "As she says, he is not vindictive. He is too egotistical for that. He has succeeded so far, and produced such havoc that he cannot conceive of anything stopping him. You see that although the army is banked solid against the house now, and along the arbor, they have devised no way by which they may invade the hydros. They have not succeeded in cutting through the copper screening, although last night they made a massed attack on it. This does not disconcert him, though. He receives, through the animal telegraph which has always puzzled us by its speed, reports on the continual falling of our buildings.

"The news reel today has given us the information that crops all over the world are being attacked with a ferocity, and by such numbers, as has never been known before. Yes, he believes that the ultimate result is assured and he is preparing to assault us when we dare to come out to fight him. He is sure that we will do so. There are no more communications. He is satisfied to wait. He believes that the Mildred ray will never kill long—that it failed once and will again. Much as he knows, and great as is his power, he really knows nothing of the brain of Man. As for Mildred, I dare not think of her. I dare not! She is all the world to me, but—the world is greater than even one lovely human being. I must, first of all, think of crushing this menace to humanity and then, if the mercy of God allows it, I shall also rescue the one who will make it worth while for me to live."

The little Japanese, Chin, McDowell and Ivanoff were in the laboratories together. Below stairs, all over the big house, there was tremendous activity. The hydros were discharging men and women and paraphernalia constantly. A chef had been brought down, with two helpers, to prepare the meals for all those people, who slept any and everywhere, dropping down to rest where and as they could. The Colonel, directing everything, and attended by the specialist who had remained, conserved his strength, was liberally fed on the precious meat juices and the almost unprocurable fresh fruits and was in every way being groomed for the coming day—for they had determined that the next morning would see them giving battle.

The last thing, before posting sentries and getting what sleep they could, was to turn on the news reels.

They were confronted with views of Ant Island and of the laboratories, for the Colonel had determined that now it was time to take the world into their confidence. Side by side with the pictures of bridges crashing in, and of buildings falling, of thousands of people in the Dakotas and in Manchuria fighting for the preservation of the wheat fields, there were dispatches from all over the devastated earth, showing that people were hoping, that they were turning their eyes to this little dot out from the North American coast, as the scene of a struggle which would mean either utter ruin or a new lease of existence for the human race.

At Aspen, the little town down the coast, the newspaper correspondents, having gotten down there from New York and Philadelphia, often by the painful process of riding on the shaky and frequently derailed old freight trains, were waiting for the flashes of news from the radio at Ant Island which they might transmit to a waiting world, wrung with the agony of doubt. The tremendous story of the abduction of Mildred, the sponsor of the great ray which was to bear her name, thrilled the hearts of those who read. The broadcast of her two letters had aroused the feelings of unutterable amazement.

Thomas Goellet, in New York, discredited and shown to have used a great deal of the girl's fortune in making himself the "Czar" of the greatest city on earth, was in hiding. His fortune had been confiscated. Mildred's fortune, to some extent, had been restored to her and the rest of his many millions were portioned out among the endless people whom his machinations had injured.

From the ruling bodies of the world, the Bureaus of Science of North and South America, of European and Asiatic Europe and from the enormously powerful Bureau of Japan had come assurances that they at last agreed with the deductions of Colonel Fortescue. Many of them, given the clue, had themselves isolated the acid caused by ants running on and through buildings of metallic construction or metallic skeletons, and a number of antidotes were already being used, more or less effectively.

It was the Mildred ray gun, however, which was

revolutionizing the world so fast that its startled inhabitants could hardly believe the evidence of their eyes.

The news reel showed the progress of a small body of scientists through what had once been orchards in Georgia, throwing the lavender circle of light around and about them and leaving trails of dead insects which, almost in the same breath, shrivelled into nothingness. It showed ladybugs, coccinellids, ready in big trays, for release into grounds already partially swept clear of the worse pests, and that the ray was not inimical to them.

"That," said the Colonel," is the greatest triumph that has been achieved, and it is to you and your assistants, Notzu, that we owe the differentiation of the ray, so that it is harmless to beneficial insects. We have already proven that it is not only harmless to plant life but that it is a wonderful stimulant. The flowers in Mildred's room, which had wilted, due to lack of attention, given a little water and a very mild treatment of the Mildred ray, revived, and one of them is producing a beautiful bloom. Please God, another ten years will see birds again singing in fruitful orchards, human life again safe out of doors, and the menace which has lain on us for hundreds of years put down. If I—and Mildred—lose our lives tomorrow—for if I find her dead I shall not live without her and in these enlightened days there will be no one to declare me selfish—I shall still know that the world is again Man's world."

Ivanoff looked around to see that the door was closed and that the little group of leaders was alone and then he spoke in a low voice.

"Mortimer, between us, who have the strength to bear anything, let us speak the truth. Do you believe that we shall be successful?"

"We shall be successful either now or at another time," the stern young scientist replied, firmly. "We know that this family, which has been trained and developed into intelligence, strength and size, in the great ant family, which we have known to be of extraordinary intelligence even when we never thought of it being a menace to us—we know that the members of the family who are royalty, in that they have developed the most of these qualities, are here on this island. The idea of massing these very large ants here, and of so savagely repelling all who tried to land, and of being so conspicuous from the air, was to attract attention. The Prince concluded that I would come down here and that—and no doubt, as I see you were about to remark, Notzu, he wished to have Mildred brought here, since taking her to this chamber of his would have been too difficult a task even for him, were she to remain in New York.

"His intelligence department is no doubt remarkable. If there were an insect left alive in this house I would not now be discussing our plans, for I would believe that the creature would in some manner relay information to him. That he can read, which Mildred assures us he can, is not hard to understand, and his use of the antiquated Morse which is an almost universal toy and amusement for our children, is a simple thing. Ants could easily decode it. No doubt they have for generations understood our speech. The one thing which the Prince does not rely on is that the ray can kill him, or members of his family, with their size and—" He paused and they saw that it was only with the utmost effort that he could go on. "And with the fact that they have undoubtedly developed a blood system somewhat similar to our own, instead of the practically empty shell for a body, in which the organs, such as they are, are on what we would call the back—in which the abdomen is a mere food carrier and incinerator. The declaration which he has made that he intends to mate with Mildred—or a woman of the human race, and thus bring about amalgamation—the old scientist of his race who assures him that this can be done—all this points to the fact that some radical changes have been brought about in the ant system in this development of the size and intelligence of the royal family. In fact, I believe that this development of red blood is going on in all the larger ants, for while we have never been able to capture one, the several whom we have wounded have left faint traces of blood stain behind. Not our own blood—not even animal blood, but certainly not the greenish fluid which we find in the smaller specimens. These larger ants, with metallic coats and the black royal family, are progressing toward becoming warm-blooded creatures. Therefore I say—with the Prince we may have to use other weapons than the ray. We shall go equipped with firearms and with swords. Dr. Notzu has sent for the five Damascus blades which are kept in the Museum in New York and which, with all our science, we cannot duplicate today. They are still as perfect as the day that they were forged, in the early centuries of the Christian Era."

"Killing the Prince, then, and all his family, is absolutely necessary?"

"Absolutely. So long as there is one of them alive, we are not safe. Their adjutants will be hunted out and killed—those which Mildred says are in Europe. Here, right here, are the brains of the insect world, the directing geniuses—I had better say, genius, for I am convinced that it is this one intelligence, alone, which directs and commands the hordes and that, once he is gone, their race, with all its super-development of the many generations which have produced it, will again be returned to what, in humanity, would be savage ignorance. What has happened to Mildred—whether she is still alive or whether—he—has—made her—marry him—" he ended firmly, "he shall die."

CHAPTER XV

THE first light of the sun had no more than slanted through the tall pines which surrunded the dry well, than human figures began coming out into the arbor of the old Havens house, in Ant Island. They were clad in every device which science had been able to arrange. They wore gas masks, the long tubes of which were attached to the oxygen containers which were contained in the small casks about their bodies. They wore belts in which were held the great Mildred guns, revolvers and sounds. On their backs were strapped the chemical tanks from which there streamed a thin line of the fumes which would strike down the flying insects.

Overhead were innumerable hoverers with their chemical equipment. Four of them had fallen that morning on their way down the coast, but so many had been dispatched that they were hardly missed. Their object was to sweep the air clear, for it had been reported that vast clouds of bees, wasps and the poisonous dragon-fly had been seen near Aspen and the hoverers reported that the island, at a short distance, was surrounded by great banked clouds of flying insects. The hoverers, prepared, were laying down a barrage around and over the island. This was keeping millions of the insects back, but enough got through to annoy if not to endanger the people who were about to sally forth from the protection of the house.

As the sun swung up above the trees there was a sudden, solemn and inspiring strain of music. The great symphony orchestra of New York, the most famous in the world, was on a hydro which slowly swept back and forth over the island. The influence of music is now so well known that few important actions in the world take place without it—and the men and women,

now prepared for their gigantic struggle with the enemy of mankind, opened the door of the arbor and went out to such strains of inspiration as would settle their hearts and nerves against the terror of the insects.

Who shall describe the assault which was launched by the army of the ants! In a twinkling all the people who issued from the house were covered from head to heels with ants, of a size which had not been observed before. The great ray guns on the hoverers again and again swept the mass of marching people clear of their terrible encrustations, swept the whole arena about them clear, only to have another million rush in and ascend the moving bodies before they were, in turn, swept to death. The Mildred guns in the hands of the attacking party were not used. They were to be fresh and powerful for the final struggle.

Several of the hoverers, finding that they were about to fall, rolled crazily away out of the path of the human and insect armies, literally weighted down and stalled by the flying insects which, to the number of countless millions, cast themselves and their frail lives into the effort to disable the ships which contained the gases which killed them.

Around the island there now began to ring the hundreds of gasboats which had been a little late in arriving, and the menace from the air, so dense that it had produced almost twilight on the ground below, gradually thinned, but on the ground the battle became ever fiercer and fiercer. So many ants hurled themselves on the Colonel, on Ivanoff, on McDowell and on Chin that the rest of the party were constantly obliged to turn on their rays for a moment in order to help their hoverers in dissipating them. Slowly, they drew near the pines and there they literally began to push their way through solid walls of the insects. They kicked them aside, they drew their swords and used them as flails, they tore from their bodies masses of ants, which, now that they were among the trees, were not fully hit by the rays from the hoverers.

Four ladders of steel, heavily coated with insulation against the acid, with other ladders of fine wire, to be used in case acid should actually bite through the four, had been carried. While ants, spilling over the top of the well curb, poured themselves in streams along the ladders, and massed themselves a thousand deep at the bottom and clung to the rocks, from which they struck furiously, the twenty who had been selected to go down began, five to a ladder, to swiftly descend.

Wasserman, the German, was one of these and so was his sister, a woman of exceptional courage and strength. Chin, Ivanoff, McDowell and the Colonel each led the descent of one of the ladders. Their progress was slow, for they were obliged to force masses of ants from each slim rung before they could put weight on it. As fast as one of the party stepped off the ladder another took his place. The twenty, with the five leaders, at last stood at the bottom of the well and they looked up, far overhead, gratefully, as the three hoverers, continually passing and repassing at their snail's pace, over the opening in the trees above the well, concentrated great floods of the lavender rays of the Mildred guns they carried upon the well. It was indeed wise that Fortescue had foreseen what would happen, for without this the party, squeezed in at the bottom of the well, would have been buried ten feet deep in ants within three minutes. Looking up at the edge of the well, and seeing the black, red and gray streams steadily pouring over, was like seeing loads of sand of those colors coming over. Had the ants forming those streams remained, even as dead bodies, the party would have been suffocated before they could have even started to climb out by the ladders. As it was, the streams seemed to disappear as they struck half way down, where the soft rings of lavender light continually passed and repassed. At the feet of the party dry, crackling bits fell, which were mashed to powder by their feet.

The Colonel now pointed to the five-foot entrance, dark, silent and seemingly deserted, which yawned at one side. Rocks there had been dug out to make a symmetrical opening beyond which their flashlights showed a tunnel which turned abruptly at right angles.

The Colonel was about to bend his head and enter, but Chin with a shake of his head, edged in first and Ivanoff followed before the Colonel could interpose. They were determined that the leader should not take the first brunt of whatever lay before them.

For half an hour the hoverers continued to clear the well of the hordes which poured ceaselessly over its curb, and in all that time not a word came from the attacking party. The radio, left in charge of five operators at the top of the Havens house, and in constant communication with the rest of the world by the radiotel, had nothing to report, except that the flying hordes, attacked for fifty miles up and down the coast from the island, were gradually being decimated.

The ants on the island were actually thinning out, at last. It was possible for the men on the hoverers, sweeping it, raking it with their Mildred guns, to see bare patches of ground. The termites were the hardest to kill and their leaders, those in metallic coats, were clever beyond belief in leading their reduced ranks to places of safety, but still the slaughter went on.

The swarms of wasps which, flying in such numbers as to actually weigh down the smaller hoverers and scouters, had been a terrible menace but were drawing off. One cloud of them, estimated to be about five million or possibly double that number, suddenly turned and fled, scattering into separate clumps, in panic, as it was pursued by swift scouters, with the Mildreds. A cheer went up from the sky as this was observed.

As time went on, however, the people at the radio controls, and the announcers and the many throughout the world waiting for news, began to feel the chill of fear. It was now three-quarters of an hour since the attacking party had disappeared through the entrance at the side of the well.

Had the Prince an invincible army down there? Had he poison fumes against which the gas masks would not operate? Had the whole royal family, with the captured girl, retreated to distant points and was the party still searching but in vain? Could a cave-in have been managed and the party been killed or held captive?

In all the world, hardly a wheel turned, hardly an occupation was pursued. The amplifiers everywhere carried the news, and the interchange of the announcers, and in distant places the device of the radio box, not used much in settled places, kept even isolated families and communities apprized of this great moment in the history of the human race.

At last, just one hour and ten minutes after the party had disappeared and when the streams of ants pouring over the well curb had entirely ceased, someone came out of the well. Following him were other figures. Last of all came Wasserman, with a girl in his arms.

CHAPTER XVI

IT was Gerald Chin who was sent to the microphones to tell the waiting world of that last great drama in the war between man and a super-insect intelligence. The rest of the party were allowed to rest. The ships which had taken part in the engagement began to fly away to refuel and to care for the many who had been hurt in jumping with their parachutes from the

falling ships. The orchestra ceased. Chin, who had had some experience as an announcer on other occasions, hastily took some of the priceless beef-tea reserved for such important needs and then prepared to tell the story of the most dramatic hour in the history of the human race.

"As soon as we turned the angle of the tunnel," he began, after an announcer had briefly recapitulated the events which led up to that moment, "we perceived that it was packed, solid, with ants. Larger than we had ever seen before. Enormous. If we had not had our suits interwoven with copper wire we would have had them torn to shreds by their formidable jaws and by their forefeet, which they used as we do our hands. "To push forward into this mass, even with the concentration of the Mildred ray, which dissolved it, was the most awful experience of my life and I am sure that all the rest would say the same. The tunnel was not as short as we had expected. No doubt the creature which took Miss Sturtevant through it leaped many feet at a time, which made it seem short to her. We were fully thirty minutes pushing through. The resistance of the ants was great, for they were packed together in a wall, not one inch of which gave. The Mildred guns bit into them, foot by foot.

"The tunnel was small and we were all obliged to stoop. If we had not had our oxygen tanks we would surely have died there. Even with the oxygen coming strongly to us we were conscious of the stifling air and of a certain nauseous atmosphere.

"At last we began to meet with larger ants and now, indeed, we appreciated that we were approaching our goal, for these ants were very hard to kill with the Mildred gun. Their bodies resisted the ray. They died, but they died slowly, and with the struggles of warm blooded creatures. They fought us, too. Their front feet tore frantically at our clothing, our masks. One big fellow actually worked away at my goggles with such tenacity and cleverness that I knew a moment of panic when I thought he would succeed in unscrewing them.

"Soon we found that we were facing ants on whom the ray had no effect. We dared not try shooting, for fear that we might injure Miss Sturtevant, whose voice we could now dimly hear, calling to us. We therefore took the swords and slashed right and left, and we took the small clubs with which the Colonel had provided us and smashed and fought.

"Here was a real battle, which slowed up the progress of the party. Wasserman and his sister were tireless. I admired their strength as, stooping, they laid about them.

"And now, I have to describe that which is almost impossible. The ants became half a foot long. They stood up in the most extraordinary attitudes and tore at us, and we observed to our astonishment that they carried knives, holding them between their front claws with great expertness. Their effort was to slash our costumes, and if we had not had the swords we might have had some fatalities. As it was, all of us received minor injuries, chiefly bruises, as the knives struck us and drove the copper wire of our suits in on our flesh.

"After the half-foot ants began to be killed and disabled, we encountered a genuine fighting horde and there, indeed, was the battle from which we are all still shaken.

"There must have been five hundred of them. As fast as we cut them down, they were replaced by others pressing from the rear. We could distinctly hear shrill sounds which they made and the strange, half human sound which they produced when the swords bit through their armor.

"Their eyes gleaming, their forefeet holding knives or rocks, which they hurled with extraordinary precision, they came to grips with us. Wasserman and his sister were obliged to continually stoop, but by that time the passage was higher and the rest of us could stand up. There was little room in which to fight.

"It was an hour that we took for clearing the passage. After that there was just one moment which none of us will ever forget.

"The cave was in partial darkness, the clustering light-insects seeming to have partly fled. Miss sturtevant was fastened to the wall by what looked like bands of silk at which she was straining. Before her—my tongue lags in this description.

"No one can believe the appearance of this gigantic ant, four feet in height, possessing large, lashed eyes, and forefeet or claws which have been somewhat differentiated from the ant type and with a face which is vaguely human in its contours.

"He stood, with folded arms—yes, I mean that. The pose was that of mournful but proud resignation. The last of his family, two or three who were about three feet high, and probably his parents, and brother, crawled to his feet and lay there.

"He looked down at them, and stooped to touch one of them. Then he stood up again. Miss Sturtevant tried to speak and was choked by tears. He turned his head and looked at her and it was while he was in this attitude, that Wasserman, who had been carefully aiming his pistol at that nightmare figure, shot him.

"He was struck in the abdomen and at the juncture of the neck, and he fell to the floor.

"Miss Sturtevant at last wrenched herself free and to our amazement she ran to him and touched his face.

"He opened his eyes and looked at her and faint sounds proceeded from him. We heard the Morse, given very accurately.

"'Finished!' it said. 'All over. Goodbye . . . my dear."

"Miss Sturtevant, weeping, waited for the moment during which the eyes fluttered. Then a convulsive movement ran through the figure and it lay still. She came forward and was drawn into the arms of our commander.

"He, himself, however, had been so bruised in the fight that Wasserman took Miss Sturtevant and carried her up again to the light of day.

"Down there, in the room which he hoped to make a throneroom for a new race, lies the Prince, with his immediate family. The passage to the room is lined with his dead followers who were possessed of enough red blood to resist the Mildred rays. The Colonel and all of us, before we quitted the place, passed silently by him and we began to understand why Miss Sturtevant wept, as she went from the place which she had entered in so much terror.

"There, indeed, passed away a great intelligence.

"Also, a terrible menace.

"And now, to a world where sunshine and beauty are coming back, where the songs of birds will soon resound again, where flowers will bloom and fruit will hang, golden in the sweet summer air—I say:

"Our leaders plan to take this island and to make of it a monument to one who will remain in our annals as "The Great Foe."

"A tall tower will be erected over his grave, where he may continue to lie, as he fell.

"The radio will, for the rest of the day, be in the hands of the concerted symphonic orchestras of New York, London and Berlin, who will give you all, hours of their most divine inspirations.

"A world is saved. Let us praise God with music."

THE END

TANI of

THOSE of our readers who have become acquainted with the characters of "The Beast-Men of Ceres" and "The Cry From the Ether" need no further introduction to this author's work. In his story Mr. Septama introduces a new character—Tani, who continues, more or less, the adventures which seemed to have been completed in the last tale. This time we are taken to a new planet, we use more science to overcome new difficulties of space travel and employ more mathematics to attain our goal. "We" do all of these things, for the author possesses the happy faculty of taking the reader along, side by side, with the hero or heroine of his stories. "Tani of Ekkis" is so complete in itself, that it would hardly do to call it a sequel. If, according to our "light" at present, Mr. Septama's stories are not "possible," yet they are so well written and seem so plausible—and his science is correct—that we do not hesitate to predict a unanimously favorable acceptance of "Tani."

Illustrated by WESSO

THE remarkable recital presented herewith was received with substantial concurrence as to time by the following named gentlemen of outstanding prominence in the Solar System:

Mr. Severus Mansonby, Chief of the Bureau of Interplanetary Investigation, at his head office in the City and State of New York, on the planet Earth;

Mr. Netako Rala, War Chief, at the City of Kolata (or Collata), Capital of the South Polar Regions, on the planet Jupiter;

General Maltapa Tal-Na, General-in-Chief of the Combined Police of Mars, at Insa Bel-qua, the capital of the United quas, or peoples of the planet Mars;

Lel. T. R. Flemmonnonsi, Head of the Detective Division of the General Control, at the City of Tenla, S. W., on the planet Venus;

Stra. Instrelso Mesemmno, President of the Bureau of Public Rights and Conduct, at the City of Strekelko Talissan, on the planet Mercury;

The somewhat professorial communication accompanying the document, both being written in the interplanetary language, understood by the educated everywhere, follows:

"Honored Sirs:

"Considering the elevated standing and wide-flung efficiencies of the gentlemen addressed, and in order to enlarge the already comprehensive knowledge and records well known to be possessed by you, supposing that at some time occasion might arise for the inclusion among your necessities or conveniences of the information therein (with the general tenor of which you will be already acquainted), the following singular narrative is sent to each. Also with the realization that you will severally cause it to become available for any such other as, in your respected and exalted wisdom, may appear appropriate.

"This is in no small part due to the fact, that our own local planets have at intervals received various visitations of a nature not unlike that related, notably the planet Earth has received such, at a time not so many generations removed—referring to the pestilence following the close of its Great War.

"Unusual care has been taken in the translation from the language in which the original of the account resides—the language of the Father People, as widely modified by usages on the Planet Ekkis—to the end that it be safe and authentic to be confidently relied on by all to whom it shall come. To have embodied the entire elaborate records of the ship would have been so far inappropriate as to render the translation nearly useless. Therefore, only some parts of the original text have been retained, and the remainder faithfully abridged, and supplemented by conversations with those more or less closely conversant with the facts at first hand, or nearly so.

"You will be pleased to reflect that the language of the text, albeit altered by hundreds of years of uncontacting usages, is yet the ancestral language of my people of Jupiter, so that, happily enough, the task has not been quite a foreign undertaking. All matters have been painstakingly examined and authenticated by the most competent ones of the City Ellit of Ekkis, and other Ekkisian cities on this planet of Jupiter (known to the people of Ekkis as Esteris). These included descendants of Oomir and Tani, of Errim and Celsi, and others, some of whom personally were present for part of the strange voyage. It is consequently with unwavering confidence that the result is presented to you gentlemen, as the unimpeachable relation of actual events, with as little as possible individual intrusion of the translator.

"For your greater convenience, the terms referring to periods of time, distances, measurements, and any like things, which are different for each planet of our system, have been rendered into the equivalents employed by the respective gentlemen to whom any particular copy is transmitted; but with the attachment, for reference, of tables showing the like particulars in equivalents, first, of the Planet Ekkis; second, of the interplanetary code of weights and measures; and additionally, of each planet of our System.

"Beyond all of which, the ship Oomir of Ekkis is still extant at the city Ellit of Ekkis, and a thorough examination and inspection by the translator in person has given complete confirmation.

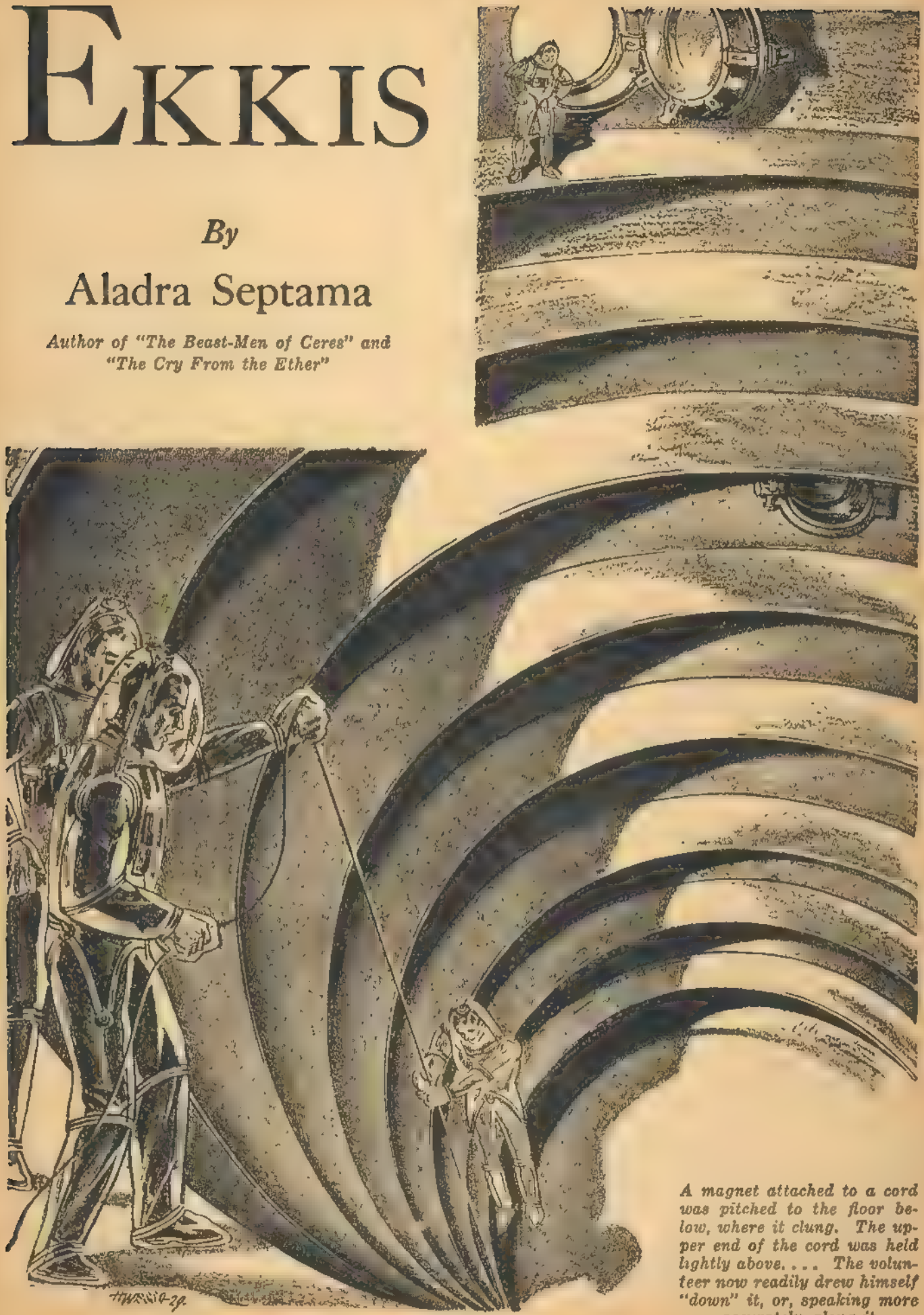
"It is deemed not irrelevant to add that the examination of the germs of diseases, which are believed to be similar to, if not quite identical with, the one referred to in the text, has enabled our scientists of Jupiter to discover their nature, and has given rise to the hope that measures will be developed for their annihilation. Without entering into an analytical discussion, which has been done elsewhere to vastly better effect than can be done by the present writer, the solution of the matter has been found to reside in the fact that the germs were so minute as to escape detection in any merely molecular, or even atomic, analysis. In short, the (to me) incredible fact has been established that the germs are intra-electronic; by which is meant that they are contained in the space between the protons of the atoms and their attendant and surrounding electron-planets. Implying that they are non-chemical, in the ordinary sense, consisting, as one might express it popularly, of *diseased electrons*.

EKKIS

By

Aladra Septama

Author of "The Beast-Men of Ceres" and "The Cry From the Ether"



A magnet attached to a cord was pitched to the floor below, where it clung. The upper end of the cord was held lightly above. . . . The volunteer now readily drew himself "down" it, or, speaking more accurately, along it

"With every assurance of my elevated respect, admiration, and honor, it remains me only to subscribe."

The communication was signed by Professor Arrata Mela, who had come to be known, since the planet Jupiter had been "discovered" and brought into contact with the remainder of the planetary family of the Solar System, as one of the most learned and eminent of linguists and translators, as well as a scientist of no mean accomplishments.

The translation itself, which is deemed not altogether devoid of general interest and entertainment, will be found upon the following pages.

* * *

THE assembly was the most momentous that had ever gathered on the planet of Ekkis—for Ekkis was dying. Time had been, before the coming of the celestial plague, when it boasted a population of billions of souls. Giant cities had reared their hydra-heads to the clouds. The society of the gay court had fluttered and frivoled; business of a thousand kinds had surged and roared; and swarms of aircraft had shut out the light of Ooai, the sun of Ekkis, 138,500,000 miles away.

But since the malignant virus of the scourge had drifted in from nobody knows where—or, rather, since Ekkis had swept through the plague-infested zone in space—a hundred years before, the people had died in droves, like flies in the breath of a furnace.

Thousands of cities where happy swarms had lived and loved, were empty shells now, from whose blank black windows gazed only the tortured ghosts of departed victims. Alike, the isolated agricultural sections had been depopulated. For this mysterious celestial pestilence had sought out and attacked with great virulence those who had no contact with their fellows, as well as those who piled themselves up in cities. Plainly, the disease did not spread by contagion, but by direct infection.

It seemed that every being on Ekkis was doomed. The plague fixed itself in the blood of the victim, and dried it out until the body withered away to a hideous caricature. It descended from parent to child, exercising its sway from generation to generation. There was no stopping it. The physicians and scientists of Ekkis were skilled; but they could do nothing. They could neither prevent, cure, nor account for it.

They said the disease was caused by a strange pathogenic bacterium, which meant nothing at all to the multitudes; that it had come in from far space, which was common supposition; that they had succeeded in isolating the germs, but only to prove them indestructible by any means known on Ekkis, which was also apparent. They passed unharmed through the fiercest heat or cold, due, it was believed, to the fact that they were unrelated in chemical structure to any familiar elements.

It was said some dead world had harbored the germs, and when it had for reasons of its own exploded and gone to pieces, the bacteria, being insensible to the cold of cosmic zero, had been blown forth to drift in space with the fragments, until they should be precipitated as meteorites or meteoric dust on some passing planet, for the bacteria to find a new foothold. Ekkis had been the first to come their way, and—well, there you were, gentlemen; that was the opinion of the physicians.

What they refrained from confiding to the laymen, however, was that their most rigid examination and analysis of infected tissue revealed not the slightest trace of any bacteria except such as were already well known to them, which left them completely nonplussed, and without even the remotest guess as to what the disease was caused by.

Alris, the capital of what was left of Ekkis, had dwindled from 22,000,000 to a few scores of thousands, and the entire population of the planet was not much over a million.

The stricken populace had appealed to the government, as if the government could have some sovereign balm for their woes. The government was vigorous. It appointed committees of investigation, which made useless tours and gave fruitless advice—at the expense of the people. It passed fair-sounding resolutions for the relief of the constituency; promulgated laws and regulations without end. But it had at last become plain to the dullest of the dying race that they would have no relief from their governors.

In desperation a final appeal was made to the Alnut, or Science Guild, a body composed of the foremost technical men of Ekkis. But the result was no better. The Guild knew no more than the physicians, and the physicians no more than the government. But there was one thing the Science Guild did that had occurred to no one else. It was not that the scientists cared so tenderly for the saving of mere life. That meant almost nothing to them. They risked their own every day in the cause of learning. But there was a thing that did mean—everything; that was their science. So long as only life were threatened, they might remain apathetic; but when it was finally brought home to them that the very existence of all that they and their fathers for thousands of years had given their breath and blood to create was threatened with annihilation—that was a different matter.

They determined that knowledge must and should be given a way to survive.

To this end action was swift and inexorable. A preliminary assembly was called; committees were appointed, with orders to bring in tangible suggestions at the next appointment; and now that time had arrived, and the hoary masters of the wisdom of Ekkis had gathered.

There had been rumors, and the afflicted people waited with fevered hope. It was said that a way had been found by the scientists—a way had been found to save them; that some had been cured already; that no more need die; that even already vast plans were afoot to cleanse the planet. O, the wise men would not fail them! They had felt that all along. Hurrah for the Alnut!

But, alas! The people did not know the Alnut; nor suspect what abstract thing had aroused it to such swift action; nor dream of what the Alnut would do.

There was silence as old Ellit, the president of the body, arose, his hair white with the labors of over a hundred years. The dean he, the overlord and wizard of science. Despite his age he was straight and sound, and his voice bore no hint of weakness as he stood to open the Alnut for this, the most momentous session that had ever been held on Ekkis.

WASTING no moment in preliminary or politeness, he drove vigorously straight to the point, his gray, cold eyes flashing over the 300 or so kindred spirits before him.

"We are come here to act, and to act quickly. The government can do nothing; the physicians nothing; the people worse than nothing. Their sense warns them that the fate of Ekkis is sealed, but sloth and love of luxury bid them wait a little while longer and see if something will not yet arise out of nowhere to save their worthless lives. We have warned them again and again that the only cure is to leave Ekkis; that only those who leave will live; but they say there is no place to go to, since the other planets of Ooai are in as bad a plight as our own, and they might only find a worse fate.

"Well, let them die with Ekkis, then. Let them die.

They do not matter, they are not our concern; lives do not matter; the preservation of learning is our vital concern. It is insufferable that wisdom should perish. We will take our knowledge to some other planet, where it can live on gloriously, even though *we* perish in the doing; and we *must* perish, because it is 350 trillion miles to Esteris (Jupiter), in the neighboring Solar System, the nearest planet that offers us any chance of a resting place. In any other direction we should need to go twice as far, which I doubt if we could do. Our ships have never traveled more than 30 million miles an hour, which was more than enough, because the only use we had for them was to go back and forth from Ekkis among the eight other planets of Ooai. You must travel eighty million or better, but there are impediments in the way of a much greater speed. One by one these other planets have died, and the scattering remnants of their peoples have come to Ekkis, to be near other human beings for the little while they have to live.

"We of the Alnut stand alone. We are our own hope. We must act quickly. For that reason we appointed committees, not to tell us what to do, but to tell us how best to do quickly what we had predetermined. Oomir, your report."

Old Ellit nodded in the direction of Oomir, who, although the youngest of their number, being not yet thirty, was evidently held in respect by his elders. Oomir arose quickly and launched into the matter as directly as had Ellit. It seemed as if haste were the watchword. Every word and act had a quality of sharp impatience, as if they could feel the enemy's talons on their arms and its horrid breath on their cheeks—which was well nigh true.

"Fellow scientists, it can be done," he shot out abruptly as he came to his feet. "It can be done; but it will take many generations. No one who sets out on the journey will live to see the end. Other generations will be born in space, live their lives and die their deaths in space, without ever feeling their feet on solid land, or even knowing what it is, and their bodies will be cast out to drift eternally in the voids. But—that is nothing, so that knowledge be saved."

There was a slight rustle, which might have passed for applause.

"We have spent much time, prepared many figures. Am I to read the report in detail, or only the substance, and leave the rest for examination later?"

"Read it, Oomir!" replied old Ellit, wearily. "What are we here for but for that? Our time, our lives, are nothing, if the result is to be lost. Read as much as you wish, Oomir. Read!"

Oomir opened up the big sheaf of papers he held in his hand, and began: "To the Most Honorable and——"

"Leave that out, boy! What do we care for that? A dead dog is just as honorable as a dead king!"

Oomir smiled gently upon old Ellit, who was loved by all, in spite of his crustiness, and skipped the usual formal beginning.

"The first element is time. It will take 500 years to reach Esteris. We cannot expect more than 80,000,000 miles an hour out of any ship we can build. As our President has explained, there are certain difficulties in the way of a much greater speed. To travel 350 trillion miles will take 500 years.

"As to the ship itself, it must be a new one. We have none either large enough or otherwise suitable. We have decided that it shall be but *one* ship, of a greater size, rather than several of smaller dimensions. It must contain everything needed to take us through the generations during which we can encounter no help. Draftsmen have been busy on the plans since our last meeting. They are all complete, and after my report we shall explain them to all, and ask suggestions."

He paused and nodded to an assistant, who produced and laid upon the table a pile of large sheets of drawings.

"And as to power, for charging our gravital repulsion batteries, by means of which we shall leave the surface of Ekkis with the enormous weight, our propulsion engines, which we shall require to bring ourselves up to the required speed, and all of the varied machinery which will be daily needed about the affairs of our life on the ship, the atomic engines can draw their fuel from the ether as well as from the air—better, I think, from the very wideness of the spacing of the ether.

"The type of engine we have determined on is the hydrogen-helium ratio. This will suit our purposes better than the various kinds we have used in the past. For the information of those present whose activities lie in other fields, I will explain briefly the principle of this engine.

"An atom of hydrogen has the atomic weight 1.008. The combination of the protons and electrons of four atoms of hydrogen, having an atomic weight of 4.032, produces one atom of helium. But the atom so made has an atomic weight of exactly 4, instead of 4.032, as it would seem it should have. The surplus weight of .032 per helium atom, has changed from mass into energy. In other words, a Mentis or Cosmic Ray has been produced, and the electro-motive power of the ray so produced is vastly greater than could be generated by any artificial electric field we could possibly produce. The magnitude of this energy is best shown by the formula—one-half mass multiplied by the square of the velocity of light (186,284 miles per second) gives a value of energy.

"It is the harnessing of this tremendous energy that will provide the power to be developed from the ether. All the details of this engine have long since been worked out, and models have been built which perform all expectations.

"So you will see," he digressed, with a wry smile, "that if the atoms of the hydrogen we drink in the shape of water were by some means suddenly induced to combine themselves into atoms of helium, enough electric energy would be produced from a glass of water to reduce our bodies to ashes."

"Don't digress, Oomir," interrupted old Ellit impatiently. "Keep to your subject. We know all that rudimentary stuff!"

OOMIR smiled. "Yes. But I feared some might not know, on account of their research being in other fields. However—as you will see, power need not trouble us. The electro-motive forces of the ether are colossal.

"As to the durability of material for our vessel, and its active machinery, the atomic engines at the Menmis, Arimi, Terrim, and other plants have been in operation for from four to six hundred years, without need of any major repairs, and when built of Ellit metal they would be good for a thousand years, seeing that we have eliminated friction in their operation.

"The number of passengers is an important and delicate thing. We have planned on 400, which ought to be about equally divided as to sex, because we must be able to maintain our number intact. It would be useless to set out if no one were alive at the end, or a number insufficient to establish and rehabilitate ourselves.

"In order to economize food, drink, oxygen, and other things, a certain number, to be determined, will be by turns kept under the sleep. Thus we can save our supplies and increase our chances of success. But so far we have found the safe extent of the sleep is only ten years at the longest, and there must be at least as long as five years between successive applications of it. One

of the tasks to be seriously pursued on shipboard will be the improving and extending of the sleep.

"The ship will be 3,000 feet in length and 500 in central diameter. It will be built of the new metal ellit, named for our illustrious dean, who has so——"

The old dean looked up sternly. "Oomir, if you do that again, I shall disrate you!"

With a fond smile, Oomir refashioned his sentence. "Built of the new metal called ellit. This is eight and a quarter times lighter, and nearly five times stronger, than the metal of which our ships have been built, and the supply is abundant. It is impervious to the action of known chemicals. It will last 500 or a thousand years—probably several thousand years—unless we encounter chemicals in space of which we know nothing. That hazard we must take in any event. This metal has been tested under all conditions; it works easily; its rigidity and strength are ample for any strain; it takes and holds an electric charge with little wastage; and it lends itself, when charged, to the action of our electro-magnetic or gravitational repulsion far better than any other known substance. This last is important—vital, indeed. Without that we should never get the enormous weight off the ground, or be able to make a safe landing elsewhere.

"The cargo will need the wisdom of all. Only casual and sketchy estimates of that have been made—only enough to prove the undertaking feasible. These must be severely scrutinized. The omission of some one small thing must not be allowed to doom the venture to failure, and leave learning to perish in space without an heir.

"I will give these estimates only in brief. They are supported by computations. We have based all estimates on 500 people, and ignored the saving by the sleep, giving a margin of safety. The greater part of our food will consist of the synthetic cubes which we have been using to some extent for generations. Three of these each day for each person will be ample, and furnish all needed elements to keep the body suitably nourished. These will require only 158,000 cubic feet, or a space 100 feet long, 100 feet wide, and about 16 feet high.

"As to water, that also is easy. We could doubtless take sufficient water, as such, but it would add unnecessary weight, and therefore strain. We shall require 91,250,000 pints, or pounds, of water for drinking alone. This might be stored in a wide space between the outer vacuum space of the ship and an inner wall. It may be better, to prevent freezing, with consequent danger to the ship, to install it centrally. That will be determined. One pint a day for each person will suffice. We have done on less of late, since there has been no safe natural supply, and we have had to use our chemical aquafiers. We could take the water itself, if properly distributed. We could keep it pure with little trouble. It would require a space 2,000 feet long, 200 feet wide, and about four feet thick. But the elements of water are far lighter, and our aquafiers will supply an automatic flow of synthetic water by the mere turning of the hand. These elements, I need not tell you, are present in sufficient quantities in our ether, as we have learned within the last few generations. But we must provide ourselves in advance, for according to a theory recently advanced, the ether of each universe is peculiar to that universe alone, and the ether of our universe may differ somewhat from that of the universe to which Esteris belongs, and we must therefore——"

"Oomir, you talk nonsense," spoke Ellit scornfully. "If the ether of each universe were different, how should the light, which traverses a thousand universes—"

"That, I was about to say," Oomir hastened to interrupt, "is easily explained. While the light-carrying quality of all ethers is about the same, yet it is said by some, whose adherents are on the increase, that the so-called ether is but the celestial atmosphere of the universes, the ether of each universe traveling and remaining with its own universe, even as the air of each planet travels and remains with its own planet, and differs for each different planet. And while air is always air, and exhibits certain common properties and capacities, yet we have learned to our sorrow that there is poisonous air and wholesome air, although both possess some common properties, such as light-passing capacity. So ether is always ether, but that of each universe may possess variant qualities. However, I merely state a theory, and do not press it; and besides, I must not wander. I make the statement merely to urge that we may not find the same chemical conditions in foreign ether, and hence must make ready at the start to carry through to the end."

ELLIT evidently suppressed a hot retort with difficulty, and subsided with a contemptuous gesture. Oomir proceeded.

"Other matters will not be difficult to care for. There will be a separate vacuum apartment for those who are under the sleep. That has all been planned. The ship will have ten floors, taking but a small part of the space in the ship, but giving room for everything. The remaining space will be devoted to machinery, factories and stores. One of these ten floors will be given to dormitories; one to schools, art quarters, libraries, and the like; five to various scientific appliances, supplies, and laboratories; one for general living quarters, and two for all other purposes. Occupying the core or center of the ship, extending from end to end and from side to side, will be located the central gravital belt or charge, which will preserve our weight and enable us to move about conveniently. Without this, we should have no weight in free ether, and should float about quite irresponsibly, besides experiencing many other handicaps. Five of the ten floors will be above this gravity belt, and five below. When upon any one of the former, our feet will be toward the feet of those on any of the latter. While on land, we can occupy only what are here the 'upper' floors, with our heads 'up'; but as soon as we shall have left the gravital pull of Ekkis, it will not matter which way our heads are, so long as our feet are toward the gravital center of the ship, for there is no up or down in free space.

"As for the personnel of the passengering, we have ventured no suggestions. And that, gentlemen, concludes my report.

"I will add, only, that if 400 shall be found an insufficient number, we can possibly increase the number to 500 by keeping a larger number under the sleep. But the safety margin allowed by our estimates should not be otherwise infringed upon. There will be many contingencies impossible to foresee. We may be delayed for some reason; the practicable speed may run a little under 80,000,000 miles an hour; our estimates of distance may be a few million miles short; we may have to do extra traveling to find a home, in case Esteris is not now fit for habitation by us, or we cannot get a foothold; we may require food for a long time until we can provide our own, wherever we decide to stay; and there are many other possibilities which will occur to you, by which we might be destroyed at the very door of success, unless we allow ourselves in advance the margins to cover those very things.

"That is the report, gentlemen. Details may be seen by all and the plans are here to be inspected."

Oomir bowed respectfully to Ellit, and sat down.

"Thank you, Oomir," acknowledged Ellit, patting the young man's shoulder, "your report is excellent." He lowered his voice. "You must go now to Tani, who is doubtless burning with impatience to see you."

Ellit sighed the wistful sigh of age over youth, as his eyes followed the hastily departing figure, then he spoke to the Guild.

"It has been reported to me privately that the gathering and manufacturing of a sufficient quantity of the metal will take some six months; during that time such additional machinery as needed for construction will be supplied and put into place. I have taken a place in a deserted shipyard, and have now a large force of the plague-stricken employed in closing it in. They will be able to finish the work, I think, before they die. The gathering of supplies of all kinds is in the hands of another committee, who reported to me before the meeting, and the work is already well on the way.

"The building of the ship will take nearly three years, under the handicaps we shall have to contend with. By the time it is done, then, everything must be ready to store it and go. In three years and four months Ekkis will be at the point in its orbit nearest the orbit of Esteris. By leaving at that time you will shorten your journey 277,000,000 miles, and while that is an insignificant distance compared with the length of the journey, it is worth saving, for a few days might stand between our descendents and the salvation of learning. We must look ahead and give them every margin, no matter how small.

"As to the personnel of the company, I have attended to that by including all of the members of the Guild except myself—314 in number. Of these 107 are women, 207 are men. With few exceptions the women are already the wives of the members of the Guild. Forty more of our men have already selected mates from the plague-free, and I suggest that the remainder do the same quickly, while there are any free ones to choose from.

"This will bring—with the 60 or 70 children of married members, and the few others who will go—will bring the number close to 500. There seems to be no escape from it, and you will, therefore, be compelled to keep a proportionately larger number under the sleep, or else reduce your numbers in the coming generations. That will be your own affair.

"That ends the meeting. You are at liberty to examine the plans of the ship and the details of the cargo."

On leaving the meeting, Oomir hurried through a doorway, followed a corridor some distance, took an elevator to the ground level, and entered a small subway car, which whisked him away. In a few minutes he brought the car to a stop by pressing a certain button of many mounted in a board on the wall of the vehicle.

He stepped out quickly, took another elevator upward and hastened toward a well-known door. Even as he put out a hand to signal his presence, the door opened. With a glad cry a slender form fairly catapulted into his embrace. Luscious red lips were proffered, and he felt bare white arms pressing about his neck with no doubtful force.

"Acca, Tani, talani tasit," whispered Oomir into a shapely little ear.

The girl lay her beautiful young head upon his shoulder. "Talani tasit, mana," she replied softly. "Tani talani tasit."

He drew her closer, and arm in arm they entered and crossed to a divan before a window.

"You were long, Oomir. Are you through with the ogres for today?"

"Yes, Tani," he smiled, "for today and a few more days. My work is done for the present."

"And did grandfather Ellit scold you, as usual?"

"Surely, Tani. Why not, when he pats my shoulder and bids me hasten away to you?"

A hand fondled Oomir's face. "Grandfather's a dear. I love him—him and you, acca mana."

After a while they turned to look out through the window, and she sighed softly. "I have been sitting here while you were with the ogres, and wishing I could go out into the gardens in the sun, Oomir. Do you think it would hurt—just for one time? I am so tired of staying inside."

Oomir's face filled with horror. "Do not speak so, my Tani! Do not even speak of it! You know the plague is out there. Everywhere it is in the air. But one step beyond the door and you might catch the terrible death. You know that for a generation the scientists and their families and loved ones have never put a foot over the thresholds of their sealed houses and the connecting tunnels. Remember that the air we breathe must pass through the purifiers first; the food we eat has first to be—"

"O, yes, I know, acca. I suppose it is necessary. But it does look so tempting outside. Remember I have never been outside, Oomir—never so much as put my feet upon the ground; never—"

"Nor have I, Tani mana, except for the few years while I was a small child; never since the sealing was done. That is why we are alive now. If the people would have listened and done the same, millions might be alive who are dead of the scourge—or worse than dead. You want to live, Tani, so you must never go out—never so much as unseal your windows to take a single breath of—of what is out there. One breath might mean a horrible death. Promise me, Tani!"

The girl looked long into his eyes, then touched his face and gave him her red lips again.

"I won't, of course, Oomir, if—if you're sure I shouldn't."

"Yes. O, yes! I'm sure, Tani. I would not refuse it to you if there were any other way."

She changed the subject. "What did the ogres do today, Oomir? Is there any hope?"

He stirred himself and brightened, relieved. "Yes, Tani, there is hope. We are going to leave Ekkis—soon. Even now things are working as fast as they can. The ship is all planned, as you know. The work of getting the supplies ready to set off is being done by others. Cheer up, Tani. Soon we shall be away from Ekkis and the plague. And somewhere we shall find—"

His words froze on his lips as he realized what he had been about to say—that some time, somewhere, they would find a home, where they could live and love without the menace of the dread destroyer. But *that* he knew could never be for them. They should leave the plague-infested Ekkis to seal themselves up in an ether-ship. There they would live and die and from it be cast out to drift in the cold of space, where each body would be quickly reduced to a small hard pellet. If they who were then living ever landed on any planet again, it would be in small particles of incredible solidity, which would be supposed—if they were ever noticed at all—to be some sort of meteoric particles.

No. Not one who set out could ever reach the end—alive.

"Yes, yes, Oomir," she urged eagerly, when he became silent, "go on, acca mana. We shall find—"

He could not find words to reply to that for a while. When he spoke he changed the meaning of it all and halted a little.

"Somewhere—somewhere, we shall find all the means that are necessary to leave Ekkis. It will not be long till we shall be well away from this." He waved a hand to indicate the stricken outside.

What he had been dreading came, then. "How long will it take us, Oomir, to go where—where we are going?"

He had to tell her. There was no other way. And she was brave—brave as women usually are. "It is well, Oomir. Grieve not for me, nor think to hide aught. I shall do as well shut up in a ship as shut up here. At least we shall not have to look in the disgusting face of the plague all the time. I shall not mind at all, so long as I have you."

And so, as ever with lovers in all places, the deaths and dangers, the toils and troubles, the confinement and vexation—all went to take their place with things that were not. They were still spared for each other. They belonged to each other. What were a plague or two, a world or two, a universe or two?

* * * *

TWO years had passed on Ekkis since the Alnut started to act. Terrible years, they had been, bringing no relief. They had seen the people dwindle until the whole planet had not 100,000 left alive, and even those were terrifying mockeries of human beings. All were afflicted, now—all save the Alnut and its chosen few, who continued sealed hermetically away by themselves. A quarter of the remaining population of the planet were in Airis, the capital; the rest—anywhere. They wandered about, listless, suffering, hopeless, like lost souls in torment. Some had come in from the outlying regions to the cities; while as many from the cities had gone out to the country, as appearing to offer more hope, or a better place to die, if die they must.

The ship was nearly finished. The slave-driving Alnut had produced better speed than expected. A few more months would do it. Much of the cargo was loaded, the storerooms being first chemically treated against the plague. The cargo was likewise safeguarded, and then carefully sealed until the ship should leave Ekkis.

The Alnut had been forced to use drastic measures to keep the suffering people at work. They had confined them to the works and trained batteries of guns on them. Some they had killed. At first the scientists had controlled outside work by the help of friends and relatives among the plague-stricken. But gradually death had decreased the number of these, until at last they themselves were compelled to fare forth from their sealed houses and take over the control. They were protected by being encased in germ-proof envelopes.

So the work had gone on apace, the workers, with characteristic short-sightedness, preferred to prolong their lives a while by laboring for the Alnut, in any condition and under any terms, rather than refuse to work and suffer immediate, even if merciful death. But there had been ugly threats made, and the people had to be watched zealously to prevent violence and desertion. There were 473 persons ready to embark.

In one of his moments of relaxation—few enough, now—Oomir was sitting with Tani on her divan. They were comforting each other and looking, for one of the last times, they knew, from the windows upon their doomed world. A messenger entered hastily, to report that the mob had broken into the house of Oomir, where he had been living alone, and were sacking the place.

There was not much to do, except to seal the subways to prevent the mob from entering connecting houses. There was no going back for Oomir, for his house would now be filled with the poison air. He had perforce, and little loath, to remain in the house of Ellit, and old Ellit, who said he felt himself failing, had made them wed at once. There was no one living under the seals to wed them, and they dared bring in no outside priest. So Ellit had taken them before the Science Guild and married them himself, with the Guild to witness.

As the weeks went by, the populace became more and more restive. It would be hard to hold them in check until the last touches were put to the ship, even though little remained now to do. The works were but a short way from the great stone and steel house where the Science Guild had its quarters. Foreseeing the precise situation which had now developed, wise, far-seeing old Ellit had caused a tunnel to be made directly from the Guild Place to the interior of the enclosure containing the works, the place of entry being cunningly concealed from the workmen at the ship. This tunnel, as well as the connecting tunnels they had long been using to go from house to house of their members, had to be made by the scientists themselves, not only to prevent the possibility of the existence of these conduits being betrayed, but also to prevent them being infected.

Long ago all scientific paraphernalia had been concentrated in the great Guild Building, and this was nearly all stored in the ship now, which was guarded by a company of the more sturdy members of the Guild, under the captaincy of Oomir. No attack had yet come, though there had been many alarming rumors. Ugly crowds gathered constantly outside the stout twenty-foot wall, within which the finishing touches were being put to the ship.

Men and women of the Guild alike were now laboring to the utmost limit of their strength in day and night shifts, transporting the remaining things in small cars which ran on the light tracks laid in the tunnel leading to the ship.

The metal exterior of the great ship was complete; the food, water, and air supplies were sealed away in their compartments; the machinery of the ship was all installed and tested.

One floor had been completed and treated in advance of the others; the children, and some women to care for them, had been put on this floor. They had set foot for the last time on their world—or any other world. All others who were to go had long before been concentrated in the Guild Place, since their private homes no longer offered security from the mobs. All entrances to the Guild Place were securely sealed up with masonry, leaving the only exit the tunnel. The building was under heavy guard, and numbers of the populace were slain every day. The scientists cared little for mere life, so wisdom were preserved.

NOW the ship guards were doubled. The workmen were released and sent away, and the high enclosing wall was blown down, so that the furious rioters could be kept farther away to insure that no harm came near the ship. For now that the ship was constructed, and the workers were sent away, there was growing distrust and consternation among the stricken remnant of the glory of Ekkis.

"Do you really think," croaked an emaciated caricature of a man, who had sat in a high place, "do you really think that, after all their fine promises, the scientists will do nothing for us? Do you really believe—"

"Do I really believe!" mocked his once beautiful wife, through shriveled and hideous lips. "I told you, you fool, that the scientists had no thought of us. When you and your friends were hurrahing so glibly for them, I told you then that those bloodless machines were thinking only of their own skins, and laughing at you. But oh, no! I was only a woman, and what, pray, did a woman know about affairs of state? Bah! You have behaved like trusting, confiding children, without any reasoning power of your own. Fools! Fools, all"—her voice cracked and faded away in a rattling gasp.

"Cease, woman, do! If it's true that they will not help us, we are both as good as dead—in fact, already

worse than dead. Let us not, then, spend our last days in—"

"Did you idiots think they were building that great ship to take *us* off?" The woman started up, but sank back with a weak sound that was between a gasp and a groan. "And suppose they were, what good would it do? They will never"—she coughed and fell silent, breathing hard.

The man nodded slowly, thoughtfully. "Yes, for that matter, you are right. I have been told by those who know that it will be impossible to get that enormous weight off the surface, and that even if they could, they would be merely going out into space to die of hunger and thirst. It would take them hundreds of years to reach any other planet. Yes, I think you are right. So let us not spend our last days in bickering." He arose and walked painfully, totteringly across the room, to sink down again in a seat on the other side, nearer the woman. "If we die, we die, and I suppose we must; but let us die like human beings and not like animals, in fighting with each other. Time was when you and I were—" He could not finish for the very pity of it. Time had been when they had been young and buoyant and filled with the joy of living and loving.

"O we'll die, all right, and personally I prefer to die here. I don't fancy dying off on some ship that never will get to any place, anyway—dying, perhaps of thirst or starvation, or some equally—" She broke off wearily. They could not talk long at a time, these two. They were too far gone for that. There would be a sentence or two, and then an exhausted silence.

"Yes," the man went on, "I imagine the scientists are really no better off than we. We die of the plague; but they will just as surely die of something, perhaps more terrible—off in empty space somewhere. They can never make it anywhere."

There was another of the silences, each apparently deep in bitter reflections. It was the woman who stirred restlessly, endeavored to get herself into a less painful position, and took up the word. "If you men were men, instead of weaklings, you would make them save us, even yet."

"*Make* them save us? And how, please? Everything has been done that could be done. How would you have us *make* them? They have beaten off every attack we have made upon them. They are entrenched in the impregnable Guild Place. Many have been killed already trying to *make* them save us."

"*I'll* tell you how you can make them save us, since you're willing to listen to a woman at this late day." Instinctively she looked round and lowered her voice. "The army will obey you—is practically under your orders, since the officers are nearly all dead. There are still a few hundred who are strong enough to make a fight, and there is plenty of ammunition. That old Ellit told his brother's granddaughter the ship would leave tomorrow night. The girl told my brother's girl. Many of them are still in the Guild Place, and their supplies are there, too, I suppose. At least nobody has seen them take them away. You must find a way to break in, and cut them off and hold them until they do something for us. You know quite well they could if they would. They just don't want to. They're inhuman monsters. They don't care about us. They don't want to help us, but only to sneak away and leave us to die here. Why not land a few ships on the roof of the Guild Place, and smash your way through."

Far into the night the two plague-stricken ones talked and planned. At last the man called in others, and gave them orders, and a scheme was laid which it was thought could hardly fail.

Murmurings like these were to be heard throughout most of the night:

"These cold-blooded scientists should be taught a few things! Damn the scientists! Damn all scientists—everywhere! They *would* save themselves at the expense of the people, would they? The cowards! Traitors! Why, they *said* they could save us! *Promised* to save us! Did they not? Of course they did. Who, pray, made them what they are, but us—the people. The damned ingrates. Well, all right, just wait and see. They'd see, all right!"

IN the morning, early, old Ellit was aroused by a pre-arranged signal, and going to a small hidden window a few inches square, saw a woman standing outside. It was the granddaughter of his brother, whose family had refused to seal themselves against infection, despite Ellit's earnest entreaties years before. The woman pressed a small square of paper against the pane for Ellit to read, and when he had read it, ran away, looking stealthily in all directions.

"BEWARE!" it said. "THE ARMY IS MUSTERING TO ATTACK THE GUILD PLACE! SOME TIME TODAY. HURRY! GOOD-BYE."

Old Ellit hastened to the chamber of Oomir and Tani, and told them of the message. "Hurry, my children! Hurry! There is not an instant to lose! Rouse every one at once. Tani, you do that. Tell them to come to the Assembly Hall quickly, and I will give them orders. Run, girl! You, Oomir, come with me to the Hall."

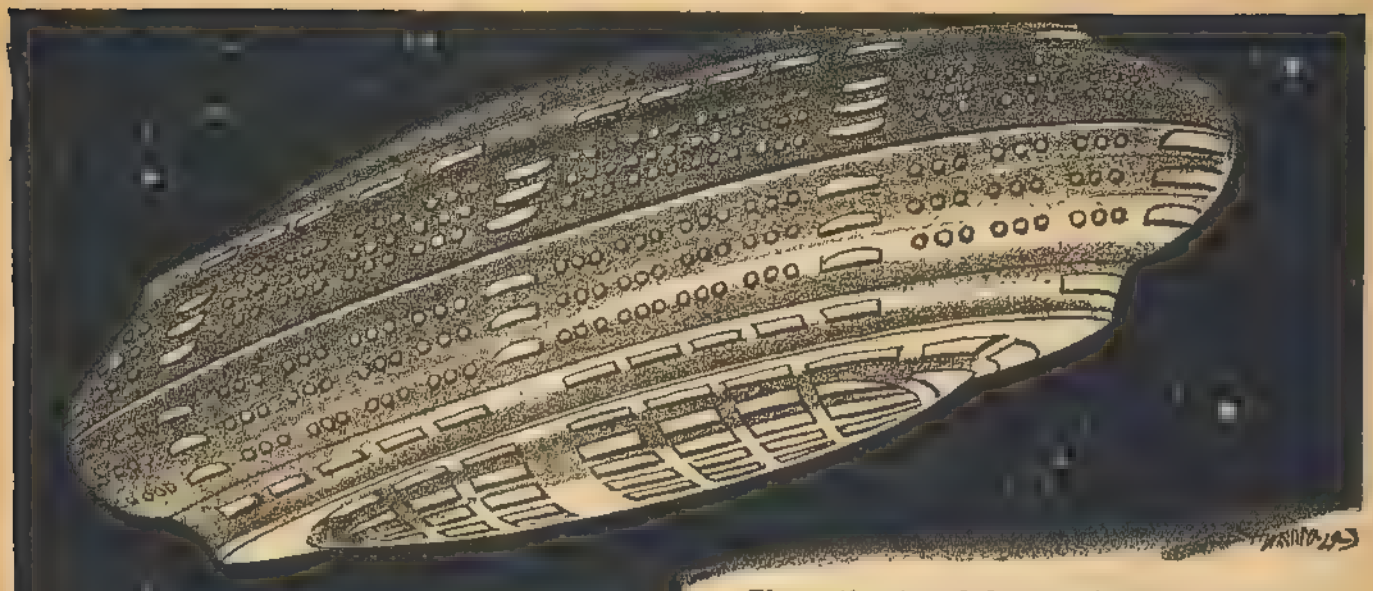
As the people arrived at the appointed place, old Ellit snapped out instructions at them. The women were to take what remaining things they required, all of which had been determined long before, and hasten through the tunnel on foot into the ship.

This group of men was to attend to assembling all remaining scientific apparatus and instruments at the mouth of the tunnel, ready for loading; this other group was to assemble this and that; another, fully armed, was to mount guard over the Guild Place. Still another was sent to reinforce the guard at the ship-end of the tunnel to prevent unexpected mischance.

Old Ellit raged here and stormed there. But they were not done with their work when the attackers were heard battering at the roof. Quickly, a breach was made. The aged dean drove his people before him with the energy of a young giant. He had barely got the last of them past the breach, with the final loads of delicate instruments, when the attackers began dropping through by the score.

Oomir and Ellit, with a few others, acted as rear-guard to the fleeing people. When Ellit had heard the first of the battering on the roof, he immediately had started powerful blowers, which he had installed at the mouth of the tunnel. These caused a draft of air to rush from the tunnel into the building, so that when a breach was made the plague-impregnated air could not come at them. His second act was to order several sacks of small but deadly hand bombs placed at points near the entrance to the tunnel leading to the ship. These were now hurled at the oncoming mob, killing them by the score. But there were hundreds of them, desperate and reckless of life. They leaped over the bodies of their comrades and dashed toward the rear-guard, to meet another volley of bombs and go down. A few more rods and the brave defenders would be away. Realizing this, the attackers rushed forward in a mass. It looked as if there were little hope for the pitifully slender defense, because the tunnel was of considerable length, and it opened directly into the ship; and it would be their sacred duty to sacrifice their lives rather than permit the plague-stricken mob to obtain entrance to the vessel.

"We must run for it," ordered Ellit, panting. "Ready! Turn and run! Don't stop until we are well inside the



The continents and the seas of Ekkis, from being vast masses, became the individualities, themselves shrinking to specks, and stricken Ekkis itself became a globe, drifting away below and behind—forever

tunnel!" With one accord they turned and dashed forward together. They were at the tunnel now, with the rabble fifty feet behind. They shot into the darkness of the tunnel, and the attackers hesitated, fearing a trap—but only for an instant. Doubtless it must have occurred to them that it was death for them, anyway, if they could not stop the fleeing scientists. There, they felt, lay their only hope. They plunged forward into the darkness in pursuit.

Oomir kept at Ellit's side, lest he should weaken and fall behind. The desperate pursuers were nearly upon them. Ellit saw they could never make the ship. He stopped suddenly. "Keep on, son," he shouted to Oomir. "Keep on. Don't stop. I have a trick up my sleeve."

While Oomir waited to see what the old man was bent on, Ellit turned back and ran straight into the arms of the pursuers, his hand held high. Even as Oomir, puzzled, started to follow him, there was a blinding flash, a heavy detonation, and the ground seemed to lift under his feet. Turning his flashlight backward, he saw through the acrid smoke the tunnel caved and completely blocked. The attackers were on the other side of the cave-in. They were saved! The way of escape was open. But somewhere between, buried under tons of rock and earth, lay the heroic old Ellit. He had given his life to save them.

Soberly Oomir turned toward the ship. He knew old Ellit had died as he wished to die—very likely as he had planned to die.

Oomir met the remainder of the rear-guard, who had started back for him and Ellit, and told them what had happened. They reached the ship safely and found the guard there engaged in fighting off other attackers. But the attack was desultory and dispirited. Plainly, the main hope had been placed in the attack on the Guild Place.

The machinery of the great 3,000-foot ship was already in motion. Now the last moorings were cast away, and all exits carefully closed and sealed. Eyes were cast wistfully for the last time at the stricken planet, and many glanced rather fearfully upward to the space where they were to live and die. Since old Ellit, who would have been the ship's commander and governor, was dead, Oomir took command rather by

tacit consent than by any spoken election; none was necessary.

FOR hours the powerful electric repulsion batteries had been getting into action, a few at a time first, and on only half charge. Now all were put on half charge. The delicate and critical task was to get the enormous weight free of the ground. A mistake now, or the failure of any part of the machinery, might mean that the great vessel would be dashed to the earth a wreck and the voyage doomed before it was begun—perhaps accompanied by the death of all on board. Once off the ground and away from the planet, the rest would be safe and easy. When the last group of the anti-gravity batteries took hold, the ship lifted slightly—only a few feet, but—it lifted free of the ground. It was standing its own strain. The computations had been accurate, then. The metal called ellit, like the old hero whose namesake it was, stood the acid test. The structure did not even groan or creak. It seemed as rigid as if it were itself a solid block of metal.

A few more slow turns of the battery controls and the great mass began to ascend—slowly, majestically, as if a part of the planet itself were parting company with the parent bulk. At a height of 500 feet the propulsion engines were put to work and the vessel moved forward, tilted slightly upward.

Objects on the surface gradually merged and became one with the landscape. The great bulk of the Guild Place was now only a square dot. Then it, too, lost its individuality. The speed was increased. The continents and the seas of Ekkis, from being vast masses, became the individualities, themselves shrinking to specks, and stricken Ekkis itself became a globe, drifting away below and behind—forever.

As already explained, the part of the vessel designed for the habitation of the passengers, contained ten floors. Five of these were above the central belt where the gravity of the ship was generated (that is, *above* as the ship had rested on the ground) and five were below. The five above were so arranged that the floors were downward, the ceilings "above" the floors, as in a building. It was upon these five floors that the passengers were placed while under the influence of the planet's gravity. The five floors which were below the central gravity belt had their floors on top, and their ceilings downward—as the vessel had stood on the ground. These floors could not, of course, be used while within the gravital pull of Ekkis.

As this pull weakened with distance, and the weight of all things decreased proportionately, the batteries charging the central gravity belt were put into service in a carefully calculated manner, restoring normal weight. The force of the repulsion batteries was decreased, and the atomic engines accelerated.

At about 5,000 miles, when the gravity of Ekkis had decreased to about one-fourth of normal (the planet was 9,417 miles in mean diameter), and they were headed directly away from it, the repulsion batteries were turned off. Their work of getting the vessel off the planet was done. The propulsion engines, whose work was taking the vessel ahead, now took their place.

As the gravity of Ekkis lessened, the speed increased. It became 100,000 miles an hour, then 500,000, stepping up, as rapidly as could be done without undue shock to the passengers, to ten million miles an hour. The latter was, of course, a matter of days. At this speed the propulsion engines were turned off entirely, and the speed continued evenly at ten million miles an hour—as it would have continued forever—without further propulsion. It was not desired to go faster until after careful inspection of the ship and machinery.

The gravity of Ekkis had long since ceased to be felt appreciably, and the artificial gravity had been increased to a point where those on the ship possessed about one-half their normal, or surface weight. A 200-pound man now weighed 100 pounds. This was convenient as making all action easier. Later, when the muscles and organs should become attuned to the lighter bodies, this might be still further decreased, as experiment proved convenient.

In the center of the ship, elevators ran from what we may for convenience call the "top," to the "bottom" of the ship, carrying the passengers from one floor to another, and furnishing access to stores of various kinds. These elevators were forwarded from one end to the other of their shafts by cables, thus running independent of gravity. From the "top" of the ship, they "descended" like an elevator on the surface which runs by gravity, until they reached the gravital level. Here they would have stopped and stood still without the cables to propel them past. Having passed this level, however, while continuing on in the same direction in their shafts, they began to "ascend" toward the "bottom" of the ship.

IT will be borne in mind that when beyond the gravital pull of the planet, the action of all things on board was controlled solely by the artificial gravity of the vessel. They now had no other, and but for this artificial or ship gravity, would have possessed absolutely no weight at all. They would have floated about freely between ceilings and floors. Liquids could not have been poured from a receptacle, and many strange things would have taken place. But with this artificial gravity it would have made not the slightest difference to the passenger whether the ship rolled completely over, or stood on end. There is no "up" and "down" in free space. There was no longer any "bottom" or "top" to the ship, and it would have been precisely the same, whether the heads of the people were toward what had on the surface been the "top" or the "bottom" so long only as their feet were toward the central gravity level or belt. On the "upper" five floors their heads were as a matter of fact toward the "top" of the ship; on the "lower" five, toward the "bottom."

The ship had been constructed in the shape, roughly of a cigar, 3,000 feet long by 500 feet in central diameter; this had been done for engineering and economic reasons. Its greater length gave more space on each floor and fewer floors.

Each elevator had two floors. The passengers reclined instead of standing, and steadied themselves by holding to supports. Had a passenger stood on his feet on one floor at the passage from the "top" to the "bottom" of the shaft—he would have fallen on his head on the opposite floor and broken his neck after passing the gravity belt. As it was, he very conveniently walked from any one of five of the ship's floors on one side of the center, into the elevator, with his head in one direction, and his feet upon one floor of the elevator, reclined during the passage of the gravity belt, at least, and arose with his feet upon the opposite elevator floor to step out upon any one of the other five floors of the ship with his head in the opposite direction.

The ship being found to work perfectly in all parts, the engines were again started, and the speed increased by slow degrees to 20,000,000 miles per hour. Gradually (in order not to injure the passengers by any too swift acceleration) speed would be further increased to what was considered the maximum safe speed of 80,000,000 miles per hour.

Theoretically (discounting certain contrary opinions) speed in free space would be unlimited, a speed of a million miles a second being not impossible. The resistance of the ether is for practical purposes nil, on

account of its extreme tenuity—the distance between its particles, or etherons, if you will. It would present no resistance whatever, and every successive impulse of propulsion, however slight, would increase the speed. If the impulses of propulsion ceased, the vessel would continue on forever at whatever speed it might then be moving. This leaves relativity out of consideration.

Furthermore, the slightest impulse of propulsion would have a very astonishing effect, and the vessel and its cargo, however heavy when in proximity to a planet, in space *would weigh absolutely nothing.*

In order to realize this, one has only to remember that weight is inseparably tied up with gravity. Weight is mass acted on by gravity. That means that without gravity there can be no weight. The artificial, or ship's gravity, would in no wise affect its weight—any more than a man would affect his own weight by pushing downward on his shoulders or pulling upward on his shoe laces. *Intrinsically,* a cubic yard of metal weighs no more than a bit of thistledown. *Intrinsically,* matter has no weight at all, weight not being an attribute of matter. It is only when one body comes into proximity with another body, giving rise to "gravity," that the phenomenon called "weight" is exhibited. "Gravity" is nothing more than the force that gives bodies an impulse to draw together, when near enough. Mathematically (which is to say theoretically), one body, however small, if free of other influence, would always attract another body, however small, and however great the distance between the two. But finding this not practically true, mathematics can furnish no better excuse than that "whatever is less than any known quantity is equal to nothing." It can furnish no other explanation of the vacuum point between finite and infinite.

However, it is not improbable that there might be a speed at which even the ether would create a dangerous friction. At such a speed there would, of course, be ether *wind,* and a passenger would be sensible of "motion"; but at any reasonable speed, such as sixty or eighty million miles per hour, there would be no wind, no perceptible friction, and so long as the motion was not accelerated, he would be entirely unconscious of motion. Whatever the speed, the vessel would appear to him motionless. At twenty million miles per hour, or fifty million, or perhaps 100 million, the sensations would be precisely the same as if it were in fact standing still in space.

The Ekkisians had computed long before that beyond a speed of 80,000,000 miles per hour, the Mentis Ray would exert influence upon an electric current, which would make its behavior erratic and unreliable.

THE ship under way and the more pressing duties discharged, Oomir went to the special living quarters set aside for him as commander, to find Tani. She was sitting motionless at her writing table, an open blank book before her, a pencil in her hand, gazing at a calendar on the table. At the sound of his entrance she went to him, flung her arms about his neck impulsively, and buried her face on his shoulder. In a moment he heard sobs and felt the convulsive shaking of her body against him. He comforted her and her sobbing soon ceased. She looked up at him and raised a hand to feel his face, a habit Oomir had always loved about her. At last she smiled. "Talani tasit, acca," she whispered. "Tani antana talara tasit."

By and by she drew him to the writing table and pointed from the first page of the open book to the calendar. She had written at the head of the page the year—7621—based on the beginning of authentic history on the planet Ekkis—with the month and the day. Then, "Of the Plague the 103rd year." Then, "Of the Exodus the first year"—with the month and day reckoned from the day they left Ekkis.

Oomir nodded. "Yes. It is a good idea, Tani. We will begin anew. This shall be the first year of the Era of the Exodus."

They stood silent a while, in each other's arms.

"I appoint you Keeper of the Calendar," he said, with a whimsical smile. "See that you keep it faithfully. We must not lose our reckoning."

"But—how shall we know"—she pursed her red lips and wrinkled her sweet young brow—"how shall we know—for sure, acca mana, that there shall be no mistake? There will be no days or nights to count as they go by."

"Well, you will have the chronometers; they will show you the count of the days until the year is ended, and then begin again; and they will show the count of the years as they pass, Tani Tani."

"Yes, but if the chronometers go wrong, as they do, you know. Even at home they varied a little, and in hundreds of years it might be a great deal. And, besides, will not our changed conditions make them vary all the more?"

"Perhaps, but conditions will vary no more on the ship than on Ekkis, namis tata. How did we correct our chronometers on Ekkis?"

She looked at him thoughtfully. "I do not know. I never thought of that. How did we?"

He smiled a superior masculine smile, whereat she pouted and shook his arm fiercely with her little hands. "Tell me, O, Oomir the Wise! How did we? I am not an ogress, and hence not a scientist. Tell me, Wise Ogre!" She shook him again.

"Why, we checked them by Ooai, the sun, and by observation of certain stars, little one, of course."

She thought about that. "Yes," she objected, "but on Ekkis we stood still, stupid! whereas now we will be always changing our position."

"No more than on Ekkis. Ekkis was always moving, too—about Ooai, you know, and traveling forward through space along with Ooai."

"I don't know, acca mana. Perhaps that is true, as you say, but I want to be sure I am right. It is important—now. I must know the age of—how old my—our child is, acca mana."

He looked at her with a great glad light in his eyes. She nodded back at him, and buried her head on his shoulder. This time there were no sobs, and in a moment she looked up into his eyes, a little bashfully. He drew her closer and they stood a long time there in each other's arms, then Oomir was called about other things, and the young girl reseated herself at her desk. Taking up her pen, she wrote. "This is the Chronicle of Tani, the Keeper of the Calendar, on board the great ship, Oomir of Ekkis. This day we left Ekkis forever" (she had started her record back as of the day they left) "to find a home on Esteris, if we may. Our number and names are on the ship's records. The distance to Esteris is—" She could not remember what Oomir had said the distance was, and left it until he should come. She studied the face of the chronometer on the wall a while, pouted her ruby lips, and put the whole puzzle aside for a delicious new introspection.

Oomir was at the time working with Errim, another of the younger scientists, supervising the placing of the stores.

"And suppose," Errim was saying, "that Esteris turns out not to be peopled or fit for peopling?"

"Then we would look for another planet that was fit," Oomir replied. "But we already know at least that Esteris is fit for habitation."

Errim looked up in surprise. "How do we know that,

Oomir? My time has been so taken up with my own experiments that I really am ashamed to say I have not kept up with some matters."

"Why, from the Father People, Errim. When they came from their home planet far beyond Ekkis, they left a colony on Ekkis which eventually drove out the animal-like beings who had lived there, and peopled the whole planet—and also the other satellites of Ooai. We are their direct descendants. They went on in the direction we are going now, and left colonies on Esteris and other planets of that solar system. After seeing all their colonies settled, the remnant of the voyagers returned to Ekkis on their way home to take more people away. It seems their home planet or planets were for some reason becoming unfit or at least undesirable for their inhabitation, and they were searching out other homes. But the Father People have never been heard from any more. It is just possible their planet met some disaster which wiped them out, or else, that they met disaster somewhere in space. We must prepare to put our first group under the sleep, and I want to call a consultation in regard to the choosing of that group. We must decide of whom it shall be composed."

Oomir found the others awaiting him and launched without indirection into the subject of the sleep.

"I think," he said, "We should choose the members of our first group with due regard to age, sex, and duties. Children under five will be exempt for the time being. Class one may consist of all between five and sixteen years of age; class two, all between sixteen and thirty; class three, from thirty to fifty; class four from fifty to seventy; and class five above seventy.

"Twenty-five percent of each class, except the last, will be put into the first sleep group; the group above seventy should all be given the benefit of the first sleep and as frequent succeeding ones as possible, in order that we may have the benefit of their wisdom as long as possible. The selections from each of the other classes will be made equally from males and females.

"After due consideration and consultation, I have made a list of 184, in addition to children under five, who will have to be omitted from the first sleep for various reasons. Some are needed about navigation and the care and management of the machinery; some about other duties; some are engaged in investigations and experiments which cannot be interrupted; and a number of the women must be omitted for reasons.

"The first group will consist of 120 persons. I will put the available names of each class upon slips in separate places here on the table, and ask you to select a person to draw the required number. The names are hidden. The names of husbands and wives are on the same slip, so that they will not be separated."

"Let Tani draw," said Errim. "Yes, Tani!" exclaimed several at once. "Tani! Tani!"

Oomir nodded. "Very well, Tani shall draw if there is no objection." There were plenty of confirmations of the choice but no dissents, and the girl came forward to the first heap of slips on the table.

"I want to say only," assured Oomir, "to any who may not know, that there is no danger or suffering connected with the process. You will awake in exactly the same condition as you are now."

THE selections made, those chosen went cheerfully to the chamber where specialists would prepare them and put them through the process, which was short and simple. The candidates merely reclined in a room charged with a specially prepared atmosphere and in a few moments were asleep. They were watched with care by the specialists. Gradually respiration and heart beat declined until there was no sign of life. At the end of an hour of apparent lifelessness, the bodies were laid in separate tanks filled with a prepared solution; the specialists left the room, and the air was pumped out so as to form a vacuum. The tanks were along the walls and had small glass panels through which the sleepers could be inspected at intervals, without entering the sleep chamber. The name of each sleeper, with a number, appeared upon the respective tanks where they could be seen through the glass panel.

In exactly ten years they would be awakened, none the worse for their experience, and with the sensation of having only had a refreshing sleep. As a matter of course, the sleepers awoke in the same physical condition as when put to sleep; that is, put to sleep at thirty years, one would still be thirty years of age in physical fact, although forty in point of time elapsing since his birth.

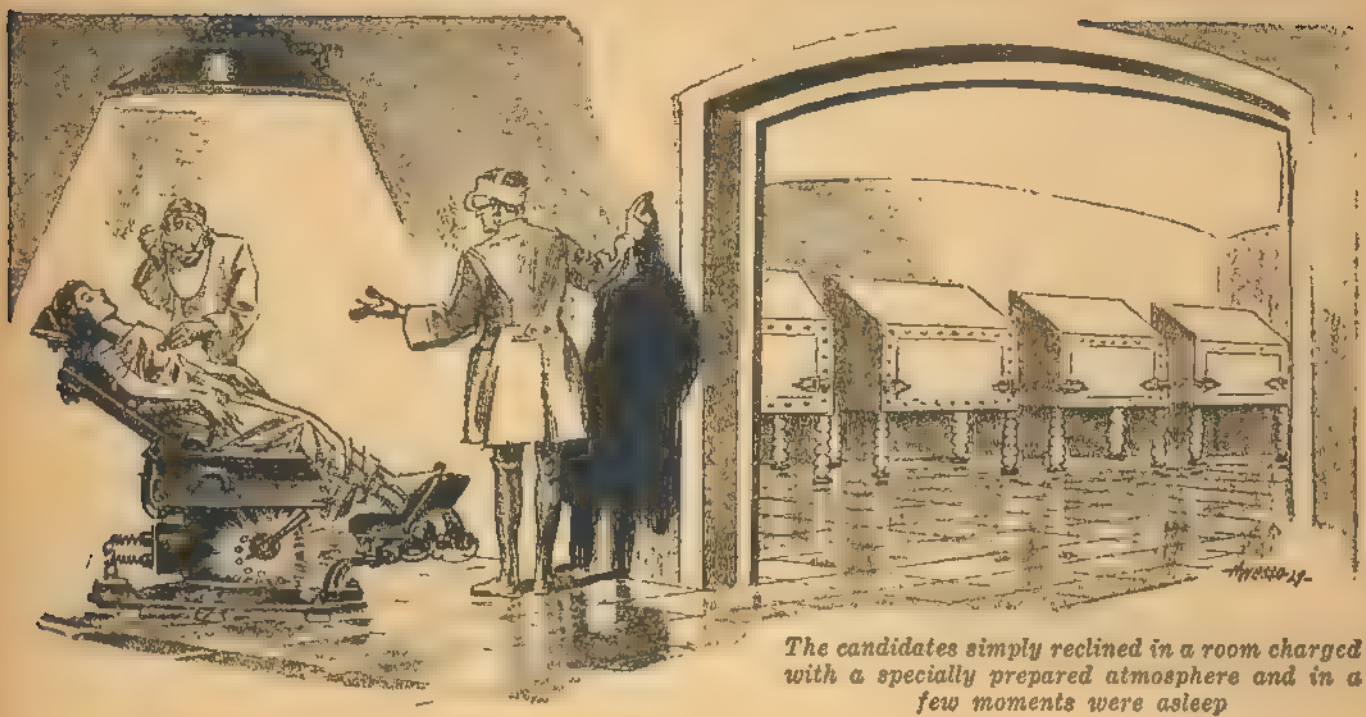
The process was completed in time for the "evening" meal, and the remaining 369 citizens of the little "republic" gathered in the great dining hall where the food was served. There were two meals a "day." There were, of course, no "days" or "nights" in the sense of a period of light and a period of darkness. Outside, it was always black in the shadows and bright in the rays of the sun. "Days" existed only by the clock.

Something must be said about the food they ate. It was stored, as we have already seen, in the form of specially prepared cubes, measuring one inch on each side. But the eating was as far as possible from nibbling these cubes or swallowing them in pieces like a medicine.

Each dinner cube consisted of four sections, and might easily be broken on the lines of division of the parts. One section consisted of a highly concentrated form of a meatlike substance; another of vegetable; another was made into a palatable soup; and a fourth was some such tasty desert as pudding, sweetmeats, or the like. In the preparation of the meal, the cube was separated into its four segments, and each treated separately. Thus, the meal was served not unlike an ordinary one. There were many kinds of cubes, so that the meals were not tiresome from sameness. There were varying "breakfast" cubes, and different sorts of "dinner" cubes.

In order to understand the method of manufacturing these cubes, it will be necessary to know the inner mechanism of the atoms of which all matter is composed. As is generally known, each atom is made up of many separate portions. There is a central part, or nucleus, composed of what are known as "protons" and in most elements also of nucleus electrons, and revolving about this inner core, like planets about their suns, are the planetary "electrons." The atoms of different substances vary greatly, both as to the number of these protons constituting the inner core or nucleus, the number of electrons in the nucleus and others revolving about them, and the distance at which the latter revolve around the nucleus. The atom of hydrogen, the simplest element in existence, consists of one proton, or positive charge of electricity, and one electron, or negative charge of electricity, revolving about it. Other elements have more electrons and more protons, and their atoms become complicated. The uranium atom has 92 electrons that revolve in various orbits around the nucleus, which itself consists of 238 protons and electrons, with an excess of 92 protons over the nucleus electrons, giving uranium the atomic number of 92, and the atomic weight of 238—the heaviest of all elements, whereas hydrogen is the lightest.

In other words, the framework and operation of an atom is taken as analogous to a solar system with its planets.



The candidates simply reclined in a room charged with a specially prepared atmosphere and in a few moments were asleep

Consider, for illustration, the solar system of which Ooai is the sun. Revolving around Ooai, at distances varying from 36,000,000 miles to nearly three billion miles, are eight planets, including Ekkis. Within an ellipse over five billion miles in mean diameter we have, then, these heavenly bodies. Their balance and adjustment is delicate. Most of the territory within this ellipsis consists of "empty space."

Now, let us suppose something takes place which causes all these nine satellites to draw in and lie against Ooai, the sun. Their speed may have been retarded, their distances diminished, the gravital pull of Ooai increased. We should then have the same "mass" included in a space incalculably smaller than before. And yet everything would be there that was there before. Nothing would be missing. Things would merely be packed into a smaller space—decreased in aggregate size—or extent.

The precise principles of mechanics apply to the atom. As in celestial mechanics the squares of the periods of revolution are proportional to the cubes of the distances from the sun, so in the mechanics of the atom, the squares of the infinitely brief periods it takes these tiny electron-planets to revolve around their proton-sun are proportional to the cubes of their distances from that proton.

While the atom appears to be solid, yet, literally speaking, it really contains much more space than anything else. The space inside the orbit of its outermost electron is extremely empty. Speaking proportionately, there are great stretches of "empty space" between the revolving electrons and the central proton nucleus. Put a force into operation that will result in all of the electrons being drawn in against the central nucleus, and, presto! you have the atom greatly reduced in size, but without omitting anything which was in it before. It is merely compressed into a much smaller bulk. The vistas of "empty space" have been eliminated, as in squeezing a sponge or a wad of cotton in the hand

Th.s is the principle which had been used in manufacturing the cubes of food for use on the ship. Everything was still contained in them which had originally been in the foodstuffs from which they were made. It was only that by causing the electrons of each atom of the foodstuffs to fall in closer to the central core, the bulk had been unbelievably reduced—unbelievably to those who have not been acquainted with the great percentage of "empty space" which is included in every atom, though apparently solid.

The preparing of the food for eating consisted of merely reversing the process of the manufacture. The motionless electrons were awakened and bidden to attend to their business of revolving around the protons. They shook off their slumber and went back to work, and the atom swelled once more to its former size and condition. The entire processes of both manufacture of the cubes and preparation for consumption were electro-chemical, and the force required depended upon the number of protons in the core or nucleus of the atom—which is to say, upon the atomic weight of the particular substance in hand.

THE Ekkisian chemists had long known the secret of slowing down the speed and decreasing the distance of the revolution of the electrons about the protons, while at the same time increasing the electromagnetic force of the protons. The action was rapid. A huge boulder could be reduced to a foot in diameter in an hour. They had applied the principle to divers useful purposes besides the concentration of food. Cuts and tunnels were easily and quickly made, masses of earth or rock removed from where they were not wanted, and various other undertakings carried out.

The idea had first come to their scientists through the discovery that Nature had apparently produced in other heavenly bodies substances so dense that a fragment the size of a man's hand would weigh many tons. They had studied the matter and reached the correct conclusion as to the reasons for such density.

One "evening" many months afterward, when the meal was over and Oomir had finished with his daily inspections and other routine tasks, he returned to his living quarters to find Tani standing with a puzzled frown before one of the dials which indicated the speed in miles per hour at which the vessel was traveling. It said "80,100,916."

"What's worrying you, Tani mana?" he asked, kissing the girl.

"Why, I would know, O wise one," she answered with

a mock obeisance, "how it is that this thing knows the miles we go in an hour."

"That you shall, Tani Tani, for it is simple."

"I can easily see how the speedometers of our land conveyances measure the distance, because there is something solid for them to touch. And in the airships, though what they touch is not so solid as the ground, there is still *something*. But here there is only the ether, which is just the same as nothing. I can't begin to see what makes them—what they have to—"

Oomir kissed her tenderly. "At first—long ago, we figured out the distance by first proving experimentally how fast a given number of impulses of a known strength would forward the vessel. But it was impossible to be accurate about it, for many reasons. If the vessel slowed, one must know just how much, in order to recompute from that point again. At best the speed was only guessed at or estimated. It was old Mentis, a co-laborer of Ellit, dead many years now, who showed the way to the present method. Here is how it is done.

"The density of the ether is practically uniform in all parts of free space. Therefore, any process going on generally in the ether proceeds everywhere at an even rate. One of these processes is the conversion of 'mass' into 'energy'—hydrogen into helium, oxygen, silicon, and other substances—producing Mentis or Cosmic Rays. The same number of hydrogen atoms will be converted into helium atoms in a given time in any one cubic mile of space as in any other, and of course, the same number of Mentis Rays of the helium or any other band produced. The force of these rays has been measured by delicate instruments and their aggregate force per mile determined. A cumulative register of their force is continually kept. So, to know the speed per hour at which a vessel is traveling in free ether, it is necessary only to divide the aggregate registration per hour by the predetermined factor representing the registration per mile. This is, of course, all done automatically by the speedometer, enabling it to express on its dials the result in miles per hour. Is it not simple, little one?"

She made a face at him. "Perfectly. What are you going to name our child?"

"Why, 'Tani,' of course."

"And if—"

"O, in that case the naming will be your affair."

"'Ellit,' I think, acca mana, because he gave his life for the child as well as for us."

Oomir nodded gravely. "That is well. I am glad, Tani. It is a very fine thought and I am proud of you for it, little one."

There was a silence, broken by the girl.

"Do you know, acca mana, what thing I love most in the ship?"

"Why me, of course."

She made a mouth at him. "*You!* Since when are you become a thing? I said, what *thing*."

"Oh! Well, as to that, then—" he considered—"the pastry cubes."

"How silly for a wise man! Be serious. It is a weighty matter."

"Then you must tell me, Tani."

"It is there that little Ellit is to be born. So I love the place both for what it is now and what it is to be."

Still he looked puzzled, and at last she jumped up, seized his hand, and led him from the room. "Come, acca mana. I should like to go there now, for very soon I shall go there alone and bring another back with me."

She led the way to another part of the ship. They had to enter the place through a special airlock, as it was kept hermetically sealed away from the rest of the ship. They emerged from the airlock into a garden. It had been due to the insistence of the old hero, Ellit, that it had been installed, though he had foreknown he should never enjoy it. He had been thinking of Tani—perhaps a little of the children, too.

A GARDEN—the fragrance of flowers. It was only a little place, and one of the last things he had said was that if they found they could not "afford" the air for the flowers, they should at least keep the soil and seeds. "It will be a fine thing to have a little of Ekkis along, and the new generation will at least know what soil is. And when your descendants reach their new home, bid them there engraft the little part of their native planet, Ekkis."

It had been a great thought, and one for which his name was to be called blessed a thousand times on the journey. A fragrant memory, it was, of him who died for them.

"That material is called soil," the after-born people of the ether were to say. "It is that that worlds are made of, though it is hard to see how people could live on any such place—with no ship to protect them. One would be afraid. And it is so soft—one would fear the world might go to pieces. See? See how soft it is?" And they would touch the soil gently, almost reverently, ever so little with the tips of their fingers, and draw in their breath with wonder at the thing. And one would remind them that "Ekkis is built of that substance called soil. Strange, is it not?"

So Tani and Oomir stood arm in arm and looked at the small but varied collection of flowers, and rioted in their fragrance. Small wonder Tani wanted her baby born there, considering it was at the same time the only garden she had ever set foot in, and the sole remnant of the only, if unhappy, world she had ever had a part in.

And as it fell out, Tani hastened there alone the very next day, and stayed a while. There was no pain or terror about the matter, and all girls of Ekkis were taught what they must do. And then Tani issued forth radiant in a new and transfiguring glory, with the child Ellit in her arms, and sent to Oomir the imperious command to come to their quarters *at once!*

And so, the good ship Oomir of Ekkis flashed on through the years.

Its habitants were not unhappy, having everything they had had on Ekkis—or nearly everything. The relief of being rid of the scourge, which had sneered at their every waking moment for so many years, was so great! And after all, they were not more confined on the ship than they had been bottled and corked up in their much smaller homes, connected only by underground passages; and the warp and woof of their social fabric was more closely and firmly knit.

So was thinking the maturer Tani, when, her infant asleep, she put herself again at her desk. She had taken seriously her duties of Keeper of the Calendars, or Chronicles, even if they had been conferred in jest. At the end of every period corresponding to a day, she filled up the Chronicle of events, which were small enough, often adding remarks of her own. Sixteen years had fled to take their resting place in the Nirvana of the Ages.

"Of Ekkis the year 7637," she wrote, with the month and day of the old reckoning. "Of the Exodus, the 16th year"—with the month and the day. "The reckoning of the plague I shall keep no longer. It is better forgotten."

"All is well on board the ship, Oomir of Ekkis. Too well, it seems, for the oldest ones being given the sleep first, only 108 of our company have departed, whereas

147 have enlisted. It has been necessary to suspend all births indefinitely. I had much wanted a little Tani sister for little Ellit, but Tani will have to be sister and wife both.

"Tomorrow—O, tomorrow!—the small Ellit, the son of Oomir and Tani will be awakened! It will be strange to hold my 15-year-old son on my knee, though he will be only five, and a baby in growth. It is odd! I, his mother, a girl of sixteen when he was born, and 21 when he went to sleep, and now 31, and he will be but five. It does upset things. Will he *know* me, I wonder? I was but 21 when he last saw me. It is said the sleep is to be extended from 10 to 20 years, on account of betterments. Oomir says we shall have five years with little Ellit, and then all three of us are to sleep 20 years. I don't mind, because Oomir and Ellit will be with me.

"It will be even stranger when we awake. Oomir will be 69 in years but 49 in fact; I shall be 56 (!) in years, but only 36 in fact; while little son will be 40 in years and still a child of ten in fact. What a mixture!

"Though we have been going 16 years and have made 80,000,000 miles an hour all the time, we have traveled only a little over fifteen trillion miles. What a small part of our voyage we have made. Nenni, the daughter of Errim and Celsi, a few months younger than Ellit, and under the sleep with him, will awake tomorrow, too. We mean to keep the two the same age, and hope they will wed. They loved each other and begged so hard, that they were put to sleep in the same tank. I have looked at them every day of the long ten years.

"I hear the step of Oomir; Errim and Celsi are with him. The records must wait."

* * * *

ELLIT and Nenni had awakened as radiant as if they had but slept a night away. Happy in their little ship-world they grew, inseparable, for five years more, when both they and their parents were put away for the longer sleep of 20 years. These years, too, were now over, and Tani had returned to her desk. Skipping hastily over the more scant and often fragmentary recordings of her successors at the calendars, she began again, with some puckering of her red lips, wrinkling of her brow, and many figures on paper made, erased, and remade.

"Of Ekkis the year 7661. Of the Exodus the 41st.

"I, Tani of Ekkis, of Oomir the wife and Ellit the mother, the Keeper of the Calendars and Chronicles, on the ship Oomir of Ekkis, on our way to Esteris to find a home, take up my duties, which have been done by Nessi during my sleep of 20 years, from which I arose but yesterday.

"I must compute and recompute to know my own ages, or those of my Oomir and my little son, Ellit. Each who has slept has *two* ages, one in years passed since birth, and the other in the age of the body, which are widely variant things; for it must be known that though 20 years have passed when we awake from a 20-year sleep, yet we are of the same bodily age as when we went under it.

"I am 56-36; Oomir 69-49; and Ellit 40-10. We have been nearly 41 years traveling on this ship, and if the count is indeed true, as Oomir says it must be, we have come a little over 25 trillion miles.

"I heard Errim and Oomir saying that the speed is to be tried at 100,000,000 miles, instead of the 80,000,000 we have been going per hour. They believe they have eliminated something which was preventing our going faster. They are to prove it, and if they are right, we may go several times as fast. They are laboring at our problems all the time, and often cannot take the time to come to eat and their food must be taken to them. I wish we might go 20 billion an hour! I should dearly like to be alive when the ship touches Esteris, though I know that is impossible.

"They say the sleep is being improved, too, several of the oldest ones, who have just slept 20 years, will be put back in a year to try 50 years, and perhaps later on, much longer.

"I thought they were trying to trick me about having slept 20 years, until I had looked over the records of the time and read the indicators showing the distance we have gone, and of course, had seen that they who had not slept were so much older. My body is just as when I went to sleep, 20 years ago, and I seem to have but taken a refreshing nap.

"They have built more sleep tanks and are to build still more. I do not quite know all it may portend.

"Ellit and Nenni are at their lessons, which they take together, as they do everything else, being unable to endure any separation at all. O, they will wed, be sure. She will be a scientist, along with Ellit, she avers. It is well, though I never cared about science myself.

"The population of our little republic of the ether is now a little less than we started with, which means I am permitted a daughter shortly, if all goes well, and this I shall hope. She will be Tani II. Errim and Celsi will have a son, whom they mean to name Oomir II, so that when they are of sufficient age there will be the mating of another Oomir and Tani.

"(Later). We are upset about the next sleep, not knowing when we shall have it or how long it is to be. It is whispered it may be for 100 years! It is so long I almost fear it, but yet it might be well for me, as I am already 56-36. If I have my little Tani soon and sleep 100 years after she gets to be five, I shall awake 161-42. It is strange. My Tani would be 105-5, and Ellit and Nenni 145-15."

She thought about that a while. "If I were to sleep 50 years, and Ellit did not sleep, I should awake 42 years old and he would be 65. My child would be 23 years older than his mother. *Actually*, in physical development and appearance, he would be 23 years older than his mother!

"Our supplies are lasting better than expected, on account of the longer sleeps, and we can keep the Garden of Ellit, which has been well tended during my sleep and is thriving.

"Melnis, one of our brilliant young men, and a character of rare sweetness, desires to wed, and Nari, the only girl who is available to mate with him, is but 8 years old. But it seems that nothing bothers the scientists for long, and they solved the problem quickly. Today Melnis went under the sleep for 8 years, so that he may become of more appropriate age for his bride, who will be 16 when he awakes, which to him will be as tomorrow.

"Antris, taken ill 5 years ago in the midst of writing a treatise about—I forget what it is about—but something that he has been working on for many years—Antris was put to sleep in the very middle of writing this treatise. Awakening today, he was in excellent health and completed his treatise without even having to refer to what he had done 5 years ago. Oomir said he would have disbelieved it, except that he himself had taken the written part away in order to test him."

CONDENSING the Chronicles, partly of Tani and partly of her substitutes, it came about as Tani had wished. Tani II was born in the Garden of Ellit almost at the same time that Celsi bore a son, Oomir II. Five years after, further important discoveries having

been applied to the sleep, the four parents and their four children were put under sleep for 100 years. It had been made as safe as ten, it was said. At the time of their awaking, which was as successful as from the briefer sleep periods, except that it required a few days for them to become normal, they had made nearly half of their journey, or over 170 trillion miles. The speed had been increased to 120,000,000 miles per hour. Many years after, they had rashly tried 200,000,000 miles per hour, but there was serious interference from the Cosmic Rays, upsetting the speed recorders, and even damaging some of the machinery, so that they had had to eat dry food cubes several days, soaking them in water having not the least effect. They dropped back to 160,000,000 miles an hour before things became normal, and continued at that speed. It would have been serious to have any injury come to the ship, which they feared might happen at the excessive speed.

Oomir and Tani were 174-54 and 161-41; Ellit and Nenni 145-15; and Tani II and Oomir II 105-5.

The population of the ship, the Etherians, as they had come sometimes to call themselves, had remained stable, the general health excellent; food, drink, and other supplies abundant. The ship was as good as new, and such machinery as was required about the every-day living and working was proving faithful. Conditions had little changed when Tani, after a period of recuperation from her century-long unconsciousness, took up her official duties again.

She was much the same girl as the Tani who had embarked—maturer, certainly, at the age of 41, yet looking no more than three-fourths of her years, and seeming rather an older girl than a woman. Her flesh was as smooth and white as ever, her eyes as bright and alert, though a shade more thoughtful, and her sweet, mischievous spirit unchanged.

"Of Ekkis the year 7766!" she wrote. "Of the Exodus the 146th. I, Tani of Ekkis, the Keeper of the Chronicles of the Ship Oomir of Ekkis, only of late awake from a 100-year sleep, am still Tani of Ekkis, though 161 years have passed since my birth. Oomir the wise is just the same O. the W. as he was that last day that he came to me in my apartment the day before we were wed, and we sat on the divan and looked out at the plague. He has spoken about how terrible it would have been if I had fulfilled my wish and opened my window a little to breathe the outside air, or stepped out into the gardens for a while. Wise men are so much like little children—very dear little children. He has never suspected that I never meant to go out, and only said it because I wanted him to beg me not to.

"The children are still the same children of 15 and 5, though 145 and 105. Due to great increase of our speed, we are nearly half way to Esteris, and it seems now assured that if all goes well some of us who embarked will live to see the end, and perhaps much longer. At least, being now at the middle of our flight, we are beginning to look toward the end, instead of the beginning.

"Ah! To set foot on the *ground* again! Shall I ever, I wonder? I should be sure to fall down and kiss the dear soil, I know. I have done that in the Garden of Ellit. I have never in my whole life walked the ground, excepting only in the underground tunnels and in precious, brave old grandfather's garden here on the ship. He and the soil—I love. Could he only have lived to come with us! It was he who saved all our lives at the cost of his own. It was he who made the ship possible, the voyage possible. I doubt even Oomir could have done it without him. If I ever get aground again I shall raise a monument in praise of dear old Ellit of Ekkis.

"One of the great surprises after my sleep is that the Garden of Ellit has been made larger, since the supplies were so plentiful and grandfather Ellit had made them lay in an extra supply of soil.

"Ellit and Nenni are so eager to wed that we have agreed they shall in another year. Oomir II and Tani II are already inseparable, so that seems assured."

She thought a while.

"I should like to know about this sleep. I shall ask Oomir. Or perhaps I might better ask Ellit and Nenni, who are already becoming really learned in many things. I fear Nenni will outrun Ellit if he does not look well to himself."

In a few minutes they came in, arm in arm, as ever. Tani asked about their studies, and they answered quietly and modestly, each averring the other was making the greater way.

"Tell me what you know about the sleep," she asked them at length. "You know I am little learned in scientific things. I should like to know something about it. It seems to me so—impossible, well-nigh, that we can have our very life suspended so long. While it was only for 10 years it did not appear so very remarkable—but—a hundred years!"

There was a silence, Ellit and Nenni looking at each other and then at Tani. Characteristically, Ellit waited for Nenni to speak first, which she did, with a shy, sweet smile.

"Mother Tani is joking with us," she said. "We know almost nothing of the matter—only the barest rudiments—and we would be only reciting our lessons."

Tani kissed the young girl. "You are very sweet, my Nenni. Please recite your lessons for me, then."

Nenni made a little bird-like move toward the door, still taking pains to retain Ellit's hand in her own. "If you wish, we will go and ask Father Oomir to come. He is very wise. He can tell you all that you might wish to know, Mother II. Come, Ellit."

Tani detained them. "No, please, my children. Do not think to spare me. I know not even the first thing, and you will help me by giving me the primary lesson."

"Speak, then, Nenni mana. My mother wishes it, I think."

"Of course, Mother II, you shall hear our lessons if you really wish. As you know, the process is electro-chemical in its entirety. The body being nothing but an aggregation of certain well-known chemical elements, and all matter being composed of atoms, which in their component protons and electrons are nothing but charges of positive and negative electricity—why, it is natural, is it not, that the process should be electrical, or electro-chemical?"

"But the *mind*, my Nenni? Where is my mind—my—my *self*? Where does it live? For it does live. Does it stay in the sleep tank? And is *it* preserved by the bath? I am more than my body—more than the gathering of chemicals you speak of!"

"Surely, Tani Mother, but one knows nothing of that thing which is called life, for want of another name. That is not for us. That is beyond us, not being of our doing."

"But you have your metaphysics."

"Yes, but it does not reach to what life is, or what causes it. It only tells us that along with certain chemical conditions consciousness, or life, manifests itself and acts in certain ways. We have never known it to do so *except* under those chemical conditions. And yet, the strange thing about life is that though we can reproduce the same chemical conditions that are in the body, and with great fidelity, consciousness does not result in the laboratory. We cannot give birth to consciousness from the midst of our retorts. We do know that when we cause bodily functions to cease,

life ceases to manifest itself, and when we make them go again life does re-manifest itself, as you know; but we cannot say why that is. So we have to take it at that and in studying the sleep processes and applying them, confine ourselves to the body, and the rest is done for us."

"And the process, Nenni?"

"Why I know nothing of that, Tani Mother. They tell us that matter is indestructible, unless it be when it is changed into energy; and our bodies being, as I said before, only a mixture of chemical elements, they, too, are indestructible. They only change from one group of chemical elements into others, and it is the business of the sleep bath to prevent any such change. And as long as the body is kept from any change, they have only to start the breath and the heart into movement again, and the consciousness comes back of its own accord. Which means that the person is just what he was before he went to sleep. The mind begins again where it left off; the body begins where it left off. So they tell us that there never could be any death so long as the body is kept from any chemical change; for it would always be possible to start the functions moving again, which themselves in some manner start the consciousness to manifesting again.

"A chemical can never undergo the least change—can never become any other chemical—unless it is acted on in some manner, and the sleep bath prevents that.

"The fluid into which we are put for the sleep contains one chemical element which preserves the blood from undergoing the least change. That was the start of inventing the process, and gradually they went on with each separate kind of matter of which the body is composed. Another chemical keeps the albuminous matter from changing; others the lymph, the saliva, the pancreatic juices, and so on with them all. And that is about all I know, mother Tani. Am I right as far as I have spoken?"

Tani looked at Ellit. "How about that, my son? Is she right?"

"I think so, mother. Nenni knows better than I. Of course, she did not—she forgot to say that there is superadded to the chemical bath the essential electric charge or condition, which they must take care shall be continuous. Before they learned how to apply that, the patients lived but a short time after revival, and were not right in their minds. So they believe that life itself may be electrical, as why should it not be, since we are made of nothing else but protons and electrons?"

"So after all, you have learned only that we know as yet almost nothing about the sleep," deprecated Nenni shyly.

She kissed them both. "Run along now, and attend to your affairs, as I must do with mine. You are very wise little creatures for being only 145 years old."

But they lingered hesitantly, questioning each other with a common understanding in their eyes. "We should like to ask you, Mother II"—it was Nenni—"we should like so well to walk upon the soil—the ground, as they call it—on some world. Do you think we shall ever do so?"

"Of course, Nenni, you shall." Tani was near tears herself at the pity of the plea. "Of course. You—I—I promise you that you shall, and that I will even live to walk there with you."

"And please, mother," besought Ellit, "will you tell us—some time when you have the time to spare, of course I mean—will you tell us all about how the ground, or the—the floor of the planets—is put together of this chemical mixture called soil? We have examined the soil in the Garden of Ellit, and we cannot make out how so immense a body as a world could be made up of it, unless it were mixed with something to make it cohere more firmly. I took a very small quantity of it in my hands—O, I was very careful to put it all back, mother, so that none should be wasted—and I tried to make it hard by pressing it together, but it fell apart as soon as I let it go, although the garden had been well watered just then, and the soil was wet. So I thought there must be something mixed with it when a world is made of it. And we thought we should like to have you explain how—"

"Yes, yes, dear son, I will, but—not just now." Barely in time she turned the choke into a cough.

"And, Mother Tani mana," picked up Nenni, "if you please, too, how it can be that the people dare go about on the soil—the—the ground, or the surface, of their world, where there is no ship about them to keep them from being harmed—and—there are so many other things of which we have spoken between ourselves. Of course, we have looked a great deal at the pictures of Ekkis which hang on the walls, and we have seen that the surface is not smooth—or level. There are parts of it that extend upward far above the rest, and it would appear to us it would be very dangerous to go near these tall parts, for fear they might fall and crush people. And in some of the pictures there are the—the forests—or the trees—which are a great deal taller than the people, I know, because there are people shown standing at the lower parts of them. And we have wondered how these great trees could be kept from falling and killing many of the people, as they must be very heavy. If you would please—"

"Yes, yes, darling. I will tell you all I know myself. You know that I have never really been beyond the doors myself. The houses had all been sealed up tight to keep the plague out, and I have never been outside. But I have seen the things of which you speak—seen them through the windows, and I will tell you all I know about them. But go now. I must do some duties of my own."

Tani held herself until they were beyond the door, when she could do so no longer, and gave way to wild sobbing. Poor little lambs! *Poor* little lambs!

* * * *

IT was the 97th year following the events last related, that an adventure as startling as it was unlooked-for, came to the people of the ship Oomir of Ekkis. The Chronicles of the meantime speak largely of commonplaces, of interest chiefly to those whose lives they at once touched. They are omitted from the translation, which has already grown to some length despite all the shortening.

At the happening of the adventure, the ship had left the universe of which Ooai, the sun of Ekkis, forms a part, and had entered the universe of the sun of Jupiter, called by the Etherians (as the members of the little republic of the ether had come to call themselves at times), Esteris. The long journey was reaching out toward the end. Long since the Etherian astronomers had picked out Esteris by the aid of the charts left with them by the Father People in their last journey before they had passed out of their ken—perhaps forever, perhaps not. The lives of the heavens are long, and it may be that some race in the dim millions of future years will see them again. A million years are but an instant in the universal ages, a billion years but an hour.

The Etherian astronomers had for many years been straining their eyes toward Great Esteris—Esteris the fair land of promise where Hope resided; Esteris, the haven into which their weary ship should come at the end of the colossal journey. At the time of the ad-

venture they were numbering their miles, not from Ekkis, but to Esteris.

Oomir had been spending a quiet "evening" with Tani, when an excited messenger rushed in. They desired his presence, quickly, please—not a moment to lose! The Head Observer wished him. The messenger dashed out without waiting for more, and Oomir followed on his heels, alarmed lest the ship were threatened, but without an inkling as to what it could be.

The Observer was at his glasses, watching with obvious excitement a small speck that appeared to be moving along at their right, at a small angle to their course. It was still a number of thousand miles away; also it was still a good many thousand miles ahead, and while making a good speed, was evidently moving more slowly than they.

"It has the appearance of a ship," said the Observer. "I thought you would want to investigate. If it does turn out to be one, we might secure valuable information. Indeed, it might be an Esterian vessel."

Oomir made a long, careful appraisal through the powerful glass, then hurriedly pushed a button labeled "General Emergency." This rang an alarm bell which would send the person in charge of each floor to the telephone on the run. In less than a minute every floor had answered.

"Have all passengers secure themselves—quickly. We are about to slow down. Make haste. I give you two minutes."

Then he called the forward engine room and ordered the "braking engines" to go into action at the maximum force consistent with safety to the passengers. When the force of the backward thrust began to make itself felt, almost insensibly at first, but with rapidly increasing tension, he called up the rear engine room and ordered the propulsion power applied gently on the left side, causing the ship to swing into a circle toward the object.

"It is a ship of some kind, I feel quite sure," he said, after another inspection. "We will pull over closer until we can be sure about it, and if it is a ship, we will circle until we are down to its speed, and see if we can get into communication. Get ready to give signals when we draw near enough for them to see."

When the rapidly slowing ship began to swing around, the speed dials, from the principle on which they were operated, became useless as indicating the forward speed. They showed only the distance actually traveled in any line, straight or circular.

As the Etherians drew nearer to the strange object, it became apparent that it was indeed a ship. They maneuvered so as to pass it at a margin of safety, then began sweeping about in wide circles, at each return drawing alongside at a reduced speed, until the two were traveling along side by side at equal speed.

Their signals drew no response from the stranger; nor was there any sign of life on board. Printed characters, supposedly proclaiming the name and nativity of the stranger ship, appeared on the ends and sides, but they were entirely foreign and conveyed no information to the present beholders.

It will be remembered that the language of the Father People was the native tongue of the people of Ekkis, since they were descended directly from them; and that would also be the language of the Esterians, or Jovians, if the colonies left by the Father People were still dominant. And although that had been thousands of years before, it was altogether unlikely that the written characters would have changed so as not to be recognizable in some degree. Therefore, it was concluded that the strange ship was probably not of Esteris.

They could elicit no reply from the mysterious craft.

Shaped not too unlike their own, though a third shorter and more slender of waist, the mystery, which impressed itself alike upon all, seemed to proceed not so much from what was apparent, as what ought to be and was not.

"I wonder," mused Oomir, "if the ship *has* no passengers. It could be one that had some way got adrift with no one on board; or it could have become unmanageable and just drifted until all on board had died; or it could have been abandoned; or—well, we will have one more try at them, and if that brings no results, the only way to find out is to board her."

In response to Oomir's orders, a line was prepared having a strong magnet attached to one end. An engineer donned the usual habiliments for going out into the ether, containing air of the requisite composition and density, artificial gravity appliances, and the like, and went through an airlock to the outside of the ship. He then threw the line to the metal hull of the stranger ship, where the magnet caused it to cling. In addition to the magnet, the outward end of the line carried a sensitive instrument resembling a dictograph in principle, connected through the line with a delicate mechanism and an amplifier in the Etherian vessel. The slightest sound on the strange vessel—even so much as a rustle or a whisper—could now have been detected.

Nothing was heard, however, and a further test showed that the vessel was carrying no artificial gravity.

Preparations were made to board her.

THE boarding of the vessel in mid-ether was not so difficult as might be thought, an almost universal principle of ether-ship construction being ready passage inward and outward through airlocks. Small decks were provided in all craft for the convenient embarking and landing of tenders, and some models had decks extending entirely around the vessel. Provision was also commonly included for the bringing of two vessels together and securing them, in case of transshipments not conveniently handled by tenders.

Since the stranger was apparently a "dead" vessel, Oomir determined to board her by means of a tender. Should it turn out to be a "live" vessel, and hostile, the tender would have only to drop off and return to its parent ship.

The mechanism for opening the airlocks of ether-ships being always accessible from the outside as well as the inside, no difficulty was expected.

The tender selected for the operation was fifty to sixty feet long, charged with artificial gravity and air of the proper density, as also a supply of ether envelopes, according to the custom of all ether-going craft of whatever size or purpose. The party entering the tender consisted of Oomir, Errim, and several others, selected for the various abilities that might possibly be called upon.

They embarked, landed without difficulty, and secured the tender upon the deck of the mystery ship. Ether envelopes were put on, and the party entered the airlock of the stranger. Tests showed the chamber to be devoid of breathable air. After securing the outer entrance, they prepared to pass on into the vessel itself. There was a small window from the airlock into the interior, but the view was bounded by the walls of a hall-like area empty alike of human beings and inanimate objects.

This was not surprising, as it was usual to take the extra precaution of surrounding all airlocks with secondary hermetic chambers.

Passing through this secondary space into the proper

ship, the dead air gave eloquent testimony that no living being would be encountered, unless of some species whose lungs required a different chemical mixture from those of the Etherians.

Every feature of the interior but added to their puzzle. The arrangement was totally dissimilar to anything they had ever seen. The floor upon which they had entered was obviously not intended for habitation. It was, in fact, only a sort of unpartitioned gallery of a width of about eighty feet, open on the inner side to a huge rotunda extending quite from the top to the bottom of the vessel. Exploration of the entire floor yielded no trace of occupant, dead or alive, or, for the matter of that, of a great deal of anything at all. The floor, like the ceilings, the partitions, and all the rest of the framework, was of an unfamiliar metal, in some respects resembling their own intlero. (Intlero, as the translator is advised, is somewhat similar to the steel in common use in the Solar System.)

When it became a question of passing on to the other floors, they could find neither stairways, elevators, nor chutes. The only means of intercommunication between the floors appeared to be the great central rotunda, which in no way simplified things, since it gave no hint of a method. From the floor into this rotunda was a sheer plunge of a hundred feet in both directions, without any rail, parapet, or other protection. This they took to mean that the ship had not carried artificial gravity; otherwise the construction would have been perilous in the extreme. This lack of gravity they had not, of course, been personally conscious of, because of their own gravitors, which gave them apparent weight.

What kind of beings had inhabited the "dead" ship when it was "alive"? And where were they departed to?

To adjust the mind of the reader of these paragraphs, let us stand a moment where the little party of Etherians stood—on the brink of the chasm of the rotunda. While they stood on the floor, to which they were held securely enough by their gravitors, it *appeared* to them that the yawning chasm beneath their feet was *downward* from them, and certainly, so equipped, a plunge outward would have meant a dangerous, if not fatal, fall in the direction of their feet. On the other hand, it *seemed* to them that the space above their heads was upward—toward the "sky" as we would say on land. So equipped, the chasm was as truly and perilously a chasm as is the deadly crevasse to any scaler of mountain heights.

But, if they could have stood on their heads and thrust their gravity-shod feet upward against the ceiling, where they would have fastened themselves as handily as to the floor (as these magnets would fasten themselves as unconcernedly to one metal as to another, knowing no such thing as "direction"), then what had before been the chasm would have become but the space above their heads, offering no peril at all; while what had before been a harmless "overhead" space would have at once become a space of peril, into which they might go to a crushing fall if the gravitors failed them. They could have walked as well on the ceiling as on the floor, or some on the floor and some on the ceiling, all quite comfortably, so long as the south-pointing heads took care not to bump the north-pointing ones. If two of our little party had leaped out into the rotunda, one with his feet pointing one way, and the other the other way, they would have *fallen* in opposite directions.

Contrasted to all of this, however, one had only to press a button fitted into the exterior of the ether envelope, turning off the current which operated the electro-magnetic, or gravital portion of their equipment, and presto! the inner world of the ship changed as strangely and completely as if "up" and "down" had never existed. There were now either two chasms where but one had been before, or else, more truly speaking, there was none at all, because they could not fall in either direction. There was nothing to draw them in either direction, and immediately they possessed no weight at all.

Let them leap off the edge if they would. No matter at all, since they would only continue across the rotunda in the straight line of their projection until they either landed on some opposite floor (but only with such force as the impulse of their leap had given them), or, perhaps, bumped their heads but lightly and become stationary in the air, or rebounded and taken up their return journey back toward the other side.

THE reason for all this was that the gravital appliances were complete in themselves. They were in no degree or sense dependent upon any central gravity of a ship, operating as well whether or not the ship possessed any gravity of its own. And these appliances could be very readily adjusted at will to give them great or little weight—or none at all.

The explanation of these rather disturbing phenomena is that the gravitors pulled downward upon the entire body and every several atom of it, and in whatever direction they made their pull, that direction appeared for the time being to be "down," although there was no real "up" or "down" at all, neither direction being up or down, but both being of themselves entirely indifferent and neutral.

The "live" ship and the "dead" one plunged on side by side through the boundless ether, the one carrying the flower of the life and wisdom of tragic Ekkis; the other only the ghosts of—they knew not what. Had those now unresonant walls resounded at some time to the sounds of scheme and plan, of love and hate, of kindness and anger, that seem mortally universal? Had all of the manifold activities of humanity taken place, and then departed to take place there no more? And where were now the erstwhile habitants?

The sombre mantle of the eternal blackness shrouded the two ships alike, spotted and buttoned with the varicolored brilliants of the stars, like jewels on the eyes of a corpse. Somewhere behind lay dying Ekkis and her already dead sisters of the celestial clan of Ooai; somewhere ahead gleamed the promised land of Esteris.

They could see across the rotunda that the floors were widely spaced—the distance from one to the other being all of forty feet—perhaps even a little more. One of the party volunteered the attempt to reach the floor below. He first switched off the current, rendering himself as weightless as the ether itself, so that "up" and "down" held neither terror nor significance for him. A magnet attached to a cord was pitched to the floor below, where it clung. The upper end of the cord was held lightly above. A string of tow would have sufficed, and a mouse could have held it.

The volunteer now readily drew himself "down" it, or speaking more accurately, along it, hand over hand, until he had landed on the next floor, where he clung to the magnet-held lower end of the line to steady himself until he had switched on the current of his gravitors, when he could again stand upright and walk without difficulty. Again "up" and "down" became realities, attended with all of the dangers and difficulties they would have had on the surface of a planet. It was necessary now to beware of the fall into the rotunda.

The others of the party followed, excepting two, who remained on the entrance floor against possible mischance. One of these hooked his transmitter to the line which had been swung between the two ships, and made

full account to the both eager and anxious waiting ones in their own ship.

The immediate further exploration of the stranger revealed little. It seemed from appearances as if the ship had been stripped bare of all things portable. Even the machinery had been removed—with haste and force, evidently, because the emplacements had been left broken and splintered. Whatever of furnishings or equipment might at one time have been installed on the various floors was entirely gone now. Space which was probably meant to carry cargo of some sort, was empty. It was not until they had supposedly covered the entire vessel, and were about to depart for their own, that the hidden place was discovered on the lowest floor, nearly amidship. One of the party tripped slightly, and looking downward saw a ring in the floor. The trapdoor to which it was attached was not only rusted into place, but had been secured so that it could not be opened from below. The cracks around it were so filled with dust and accumulation (doubtless from the activities of clearing out the ship) that it had been overlooked at first. The fastenings were removed, and after several trials it was raised. There were steps leading downward, and a glance showed that the commodious apartment below was not only luxuriously, but almost royally, furnished. Oomir led the way down.

The place was very large. The walls were hung with tapestries, and skins of strange animals—animals that once had walked the strange world from which the vessel had come, no doubt; the tapestries were exquisitely woven, the skins skilfully cured and prepared. All were in a fair state of preservation. The deep, luxuriant furs on the floor were evidently meant for both sitting and sleeping, since there was nothing in the way of chairs, beds, or tables. Small adjoining rooms might have been pantries and the like. There were no windows in the place, and only the one door through which they had entered.

All these details were noted, not at first, but one by one afterward. The thing—or things, for there were two of them—that acted as a common magnet for all eyes, lay on the great thick fur in the center of the room. Close together, as if for fellow comfort in their extremity, pitiful relics of a life and glory that had passed, were two skeletons. With no vestige or sign of habiliments, bare and unashamed they lay, passing with grim and seasoned patience the way of flesh in whatever places, back to the elements from which all alike emerge and to which all alike must so soon inevitably return.

One was a little shorter than the other—shorter and somewhat slighter—and by that one lay a number of jewels; a necklace near the skull; a ring or two at the places where hands had lain; bracelets for the wrists and ankles; a jeweled cincture just between the ribs and hip bones. Rich and costly they all were, yet mingling in their last condition with the humbler dust, as benevolent and unshrinking, as if by that act to recite their ultimate elegiac, that all mortality, rich and poor, high and low, proud and humble, came, when the breath had fled, to the same estate at last.

Whatever of food or drink there may have been had been exhausted; whatever warmth there had been was reduced to the cold of the Cosmos. There had been ventilation from the place into the body of the ship—a provision just so lasting and no more.

It seemed as if the chamber had been prepared with a fiendish care, such a malicious nicety of balance, that the dire necessities of food, drink, warmth, and air might have descended, with either malignant or loving competition upon these pitiful two, vying which should be first to deliver to them at once their greatest agony and their kindest release.

That was all—except a small sheaf of pages like paper, partially covered with odd characters, of which the arrangement, and the wavering toward the close told their own tale. One stooped and took it up to carry away—for the wisdom it might contain.

Close the place of death, Oomir and Errim, and you others of Ekkis! Close it up and come away—back to the living, and leave these two in peace. Their history is written, their song sung, their account computed, and if they sinned, surely it is expiated now. They have no part nor lot with you, these voyagers from some far spot, but only with whatever God they served. Come away for Esteris!

ELLIT and Nenni had wed, as promised, in the year of Ekkis, 7767, and of the Exodus 147th; and after four happy years together there had been a fifty-year sleep; then a five-year living; and finally a thirty-five-year slumber. The latter had been curtailed on account of the approach of the journey's end.

On awaking, they found that in the 241st year of their flight they were close on 300 trillion miles from Ekkis, or about fifty trillion from Esteris.

At 256 years from her birth, Tani found herself fifty-one years old, though she still appeared young—almost a girl—seeming to possess the gift of eternal youth. She gave promise of a long life on Esteris. Oomir, at sixty-four, was still a young man.

It was two years after awaking from the thirty-five-year sleep, therefore, that the strange ship was encountered. We return briefly, for the last time, to her desk with Tani of Ekkis. They had left the stranger.

"Of Ekkis the year 7863," she wrote. "The 243d of our Exodus. They tell me I am still young, but I know that I am at the same time almost vastly old. I shall tell my years no more. We are approaching the end. One more sleep and we shall awake in sight of home."

Follows much detail.

"Ah! It seems to me I have never been so sad—not even that last day on Ekkis—that day when the gallant hero Ellit of Ekkis died for us. For we boarded a mysterious deserted ship today. We do not know where it is from, nor how long it has pursued its unguided way. But O, the tale it has told! My heart aches till it can ache no more, for the sweet young lovers! Our men brought away the diary they had kept, and are trying to translate it, although I told them they should be ashamed at such contemptible eavesdropping. But they say something may be learned that would enlarge or amplify their knowledge. O, I am sick at heart of their eternal learning! It oppresses and almost frightens me sometimes. Sometimes I hate it! Learning is not happiness!

"But I have already translated the poor diary, though I have barely seen the outside of it. And I lay the fervent curse of Tani of Ekkis upon the hard, bitter old father, or sovereign, or what fiend soever, who cast those young lovers adrift to die. I cannot write more of it, but I shall never forget them—nor cease to pray for them—and if I ever put my feet upon a *world* again, I shall—I know what I shall do."

* * * *

THE following brief statement, which was found by the translator among the records of the ship, and which seems not to have excited any attention elsewhere, but which the translator regards as a matter of import (in view of certain matters which are not involved here), is inserted without comment, as explaining itself:

"I am Narrit, the Observer on the ship which has been called Oomir of Ekkis. I have seen strange and terrifying things, of which I have not spoken, even to

(*Continued on page* 141)

By A. Hyatt Verrill

Author of "The Bridge of Light," "The World of the Giant Ants," etc.

The Dirigibles of

ONLY a few short years ago television was emphatically and positively dubbed "impossible" of realization. Today we not only know that it is very highly possible, but every effort is being put forth toward its perfection. If he doesn't give a blueprint plan of his invention in the story, Mr. Verrill does offer some exceedingly interesting suggestions, which might take root in some young scientist's mind and perhaps act as an inspiration for some inventive genius of the future. Television, however, is not the only subject dealt with in "The Dirigibles of Death." Our well-known author, being an ethnologist and archæologist of note, indulges in other phases of science also—with very happy results. Those of our readers who know Mr. Verrill's works know well that he can always be depended on to do the unusual and to furnish instructive and thought-provoking stories, which are also absorbing fiction.

Illustrated by MOREY

I WAS living in England, at Ripley, when the first of the mysterious things arrived. I am an early riser and fond of taking a stroll along the lanes and across the fields at dawn, and on that particular morning—an epochal and terrible date in the world's history—I rose and with stick in hand prepared to start on my usual morning walk. As I opened my front door and glanced down the village street I actually gasped with astonishment. In the dim gray light an immense, dark-colored mass loomed through the soft morning mist above the roof of the *Antelope* public house on the opposite side of the road a few rods down the street. I was still gazing at the thing, wondering what on earth it could be, when old Tim Newbald appeared on the porch of his little cottage. Evidently he, too, saw the thing, for he uttered a surprised ejaculation, and adjusting his glasses, stared towards the *Antelope*.

"What be the drasted thing?" he demanded, without taking his eyes from the strange object.

Sudden realization came to me. "An airship!" I shouted to him. "A dirigible of some sort. Must have been forced down. Maybe persons injured or killed."

As I spoke I dashed to the street and ran towards the *Antelope*, my mind filled with visions of dead and injured persons in the gondola of the strange airship.

Old Tim came clumping at my heels, and as I passed Gilmore's house he too popped from the door and, instantly catching sight of the stranded balloon, came racing along with me. Whether it was the sounds of our running feet, whether we unconsciously shouted as we ran, or whether it was some inexplicable form of telepathy or intuition, I cannot say, but regardless of the early hour and the fact that ordinarily few persons are astir in the village before seven, everyone seemed to be up, everyone appeared to have seen the stranded dirigible. By the time I reached the *Antelope* I was leading a group of a dozen excited and curious people. The contraption was resting in an open pasture back of the inn, its rounded, slightly-swaying black mass rising perhaps twenty feet above the ridge of the inn. Apparently no one in the *Antelope* had noticed the strange arrival in the inn's backyard. Evidently old man Thorpe and the staff were still sleeping, for the windows were tightly shuttered, the doors closed and no sign of life showed about the premises. The gate in the inn wall was also closed and latched and some delay was caused by trying to open it. By this time a considerable crowd had gathered, and I was conscious of wondering how the inmates of the *Antelope* could sleep through the hubbub we were making. Then Bob Moore, the village constable, arrived on his bike and took official charge. I noticed, as I finally forced the gate and hurried to the rear of the inn, that someone was pounding lustily at the front door of the *Antelope*. Reaching the inn-yard, I had a clear view of the airship.

Although I am not at all familiar with the niceties of details of such contrivances, I realized at once that it was very different from anything of the sort I had ever before seen. The balloon or bag was perhaps 300 feet in length by forty feet in diameter, and appeared to be made of some metal. Below it, and forming an integral part of it, was a boat-shaped body or car that rested, slightly canted by the remains of a hay-rick under one side, at a sharp angle on the ground. Close at my elbow was the bobby, while the rest of the crowd swarmed into the inn-yard from all sides.

"Rum lookin' Zep Hi s'y," commented the representative of the law as we hurried forward towards the airship now but a few yards distant. "Queer, too 'ow the blinkin' thing got here. Wasn't 'ere when Hi parsed at three, Hi'll swear. Think'e, Doc, there'll be bodies 'urt into it?"

"Like as not," I replied. "Don't see anyone about. If they're not injured or dead they'd have let us know they were here long ago."

We had now reached the airship, and to my amazement I saw that the door of the body or car was wide open. Moore and I stepped close and peered inside, expecting to see dead or injured men, although looking

Death

I mounted to the top of the gondola for the purpose of examining the motive plant of the ship

back upon it I cannot understand why we should have thought the crew of the ship should be harmed when there was no sign of injury or even of an abrupt descent about the car. But we were so confident that we *would* find wounded occupants or bodies, that when we found it absolutely empty, we were completely flabbergasted.

I say the car was empty, but I must qualify that statement slightly. It *was* empty of human beings, of furnishings, but the floor was covered with a thick layer of filthy straw or hay.

"Lor' love me, hif it aint a blinkin' flyin' cow-shed!" exclaimed the constable.

Then, removing his helmet and scratching his red head reflectively: "No sign hof them as came hin hit," he observed. "Gone off, they 'ave, an' left the bloomin' thing 'ere. Now what the blinkin' blazes ham Hi to do with hit, sir?

"You might put it in the village pound," I suggested with a grin. "But, seriously, I imagine whoever arrived with it are within the *Antelope*. Having landed in an inn's yard the most natural thing would be for them to patronize the said inn. I suppose—"

My words were interrupted by a shout and someone yelling for the constable, and I turned to see a man standing in the rear entrance to the inn, his face pale, his eyes wide and evidently greatly frightened.

"Hi, constable!" he yelled again. "Ye're wanted. The's been murder done!"

Murder! At the dread word we dashed to the inn. "What, who's murdered?" demanded Moore as we sprang up the steps.

"Everyone!" gasped the wild-eyed fellow at the door, who, I now saw, was Chris Stevens from over Clacton way. "Jim Thorne, Jerry, Ellen the bar-maid, and, and—"

We waited to hear no more. Into the hallway we rushed and came to an abrupt and sudden halt as we almost tripped over the body of Jerry the porter and man-of-all-work lying on the floor. I stopped and felt his pulse. He was dead, cold, and the pool of blood that surrounded his head had coagulated and hardened. Evidently he had been dead for several hours. Proceeding more cautiously, we passed through the bar-parlor to the room where old Jim Thorne had always slept. One glance was enough. Thorne's body lay sprawled on the floor, the face blood-covered, mutilated beyond recognition. The room was a mess. The bed-clothes were scattered about, chairs were upset, and it was obvious that a severe struggle had taken place. We hurried upstairs to find the body of Ellen, the bar-maid, a middle-aged woman, lying dead in the upper hallway, and gray-haired old Martha, the cook, stretched lifeless just within the door to her room.

"Hell's bells!" ejaculated Moore in a half-whisper. "Hit's like a blinkin' slaughter 'ouse so 'tis. Four o' 'em dead an' a bloomin' noise they must 'a made an' not a body hin the village havin' 'eard 'em. What make 'e on it, Doc?"

I shook my head. "Wholesale murder," I replied as I examined Martha's body. "And no sign of robbery or any motive. And the wounds! I've never seen any just like them. Look at poor old Martha's face, and at her chest—covered with cuts and slashes—cut to ribbons—as if she'd been hacked with a buzz-saw. And old Jim's face, did you notice it?"

"Did Hi!" exclaimed the constable. "Well, Hi *should* s'y! Looked 'e'd been chawed, 'e did; garstly, Hi call hit."

"Ellen, too," I remarked. "Her right hand and arm were torn to shreds. And that awful hole in Jerry's head! Whoever committed these crimes was a fiend—a giant in strength and used some strange weapon—perhaps a rake or a pitchfork. I should say, offhand, it was the work of a maniac—"

Moore seized my arm and I could feel him trembling. "Lor' love me, Doc, think' 'e hit might 'a been the bodies out of yon Zep?"

"Scarcely," I replied. "But it's damnably mysterious. And it surely is a remarkable coincidence that the airship should have descended in the inn-yard at or about the same time the murders were committed. And I'd like to know what became of the occupants of the dirigible. Anyhow, Moore, you'd best send to London for a good detective—this is a Scotland Yard job—and telephone to Guildford for the coroner. In the meantime—"

A shout from downstairs cut my sentence in two and, not knowing what next to expect, we dashed down. Jared Dunne, the postman, was standing at the doorway surrounded by an eager, questioning, excited throng.

"T-t-there's a m-m-murder d-daown tha r-r-road," stuttered Jared. "I w-was a-c-comin' up through C-C-Cobham an' I s-seen a G-Gypsy c-c-caravan b-beside the road. An' t-the G-Gypsies all l-lyin' raon'd d-d-deader'n N-N-Nelson."

"My God!" gasped poor Moore. "Haint four bodies murdered 'ere to the blinkin' *Antelope* henough? An' you to come with this 'ere story o' a crew o' bloomin' Gypsy-folk murdered hover to Cobham side!"

By this time word of the four murders in the inn and the murdered Gypsies had spread through the village and the place was in an uproar. Closing the inn door and cautioning the people to keep clear, Moore shooed them from the premises, deputized four men to keep guard over the airship, the inn-yard and the pasture, and having telephoned to Guildford for the coroner and to Scotland Yard for an inspector, he locked his cubby-hole of a police station, climbed into my car and we raced off towards Cobham.

We had no difficulty in finding the Gypsy caravan. It stood a few yards from the road at the edge of a spinney of birch and larch trees; a gaudy, high-wheeled red and gilt affair and even from the road we could see the huddled bundles of clothes that marked the dead owners of the van.

But as we drew closer and had a nearer view of the bodies, even Moore—who was the most unemotional of men—drew back with an exclamation of horror. And though, in my profession, I am constantly facing grewsome sights, and in the World War became callous of death in its most horrible forms, I could not repress a shudder and a sensation of nausea as I looked at the dead Gypsies sprawled upon the dew-sprinkled grass. There were five of them—two men, a woman and two children, and with the exception of one of the men, all had been mutilated in the most horrible and revolting manner. The woman's head had been torn—actually torn, not cut—from her body, and one of her arms had been stripped of flesh, leaving only shreds adhering to the bloody bones.

The man beside her was almost as awful. His eyes had been gouged from their sockets, his lips and nose torn off, and in his bared chest was a ragged opening through which his heart had been removed. The bodies of the two children were scarcely recognizable. They appeared as if gnawed and devoured by famished wolves. But terrible as were these revolting sights, I scarcely noticed them at the time, for my eyes were staring incredulously at another body, the body of a creature—no, I cannot call it a man—that lay with a long bladed Gypsy knife sticking in its breast. Never would I have believed it possible that anything in human form could have been so repulsively loathsome, so grewsomely horrible. Instantly I realized that this dead thing was the murderer, that by a lucky stroke the last Gypsy to die had plunged his knife in the fiend's heart before he, too, expired. Words cannot adequately describe the horrible creature lying there with ghastly face upturned to the sky. He, it, the thing, was of gigantic size; he must have stood well over six feet and weighed fully eighteen stone or two hundred and fifty two pounds; with enormously long gorilla-like arms ending in knotted claw-like fingers whose nails—reeking with blood and human flesh, were veritable talons. His face was that of a Caliban, a distorted, flat, blob of pasty white where not smeared with blood, with loose, flabby, pendulous lips that exposed protruding yellow teeth. He had no nose; the forehead was almost non-existent, and the tousled, straw-colored hair grew from the eyebrows over the misshapen skull that was that of an idiot. But even these repulsive physical characters paled beside the inexpressibly loathsome and revolting appearance of his body, that was almost nude. Everywhere it was covered with festering open ulcers, that I instantly recognized as those of the terrible tropical disease known as the Yaws.

Even in my horror, my amazement at the thing, I felt positive that it must have arrived in the mysterious airship, that it or its fellows, for I had a premonition that there was more than one of the murderers, had rushed upon the inmates of the *Antelope* and had ruthlessly murdered them, and that with the others still at

large no one was safe. Yet somehow it seemed so unreal, so incredible that such things could be taking place in this quiet, peaceful bit of suburban England, that I could not avoid feeling that I was passing through some horrible nightmare. I turned to Moore. "Nothing we can do here," I said. "We'll have to leave the bodies as they are until the coroner arrives. Too bad you didn't bring someone along to keep watch here until then. As it is, you'll have to remain yourself, I suppose."

"Hi will, will Hi!" cried the constable. "Not by the blinkin' hell Hi will. Lor' love me, Doc, hit's too awrful. An' that blond gorilla! Gord, did hever a body see such a 'orrible-lookin' beast? 'E's the blinkin' murderer Hi'll s'y. An' now 'e's gone west there'll be no more bloomin' murders. Let's clear hout o' 'ere, Doc. No use stayin'. Nobody's goin' to meddle with these corpuses."

"Very well," I assented. "But don't flatter yourself Moore, that there won't be any further murders. In my opinion that homicidal maniac—for that's what he unquestionably was—is only one of the crew that arrived on the airship. Of course he may have been the only murderer, but unless there's something most mysterious and horrible afoot, why didn't the others make themselves known? Why didn't they notify the authorities that this beastly creature was at large? No, Moore, there's something back of this—something uncanny, weird, terrible, deep; something of which we have no conception, at which I cannot even guess."

Little did I dream how far short of the reality were my fears, my suspicions, my words.

The coroner had arrived when we reached Ripley and a few moments later Inspector Maidstone arrived from London. But their arrival, the excitement over the inn murders and the mysterious airship, had been almost forgotten in view of the amazing news that had come to the village. A farmer, driving in his trap from East Clacton had come to the village wild-eyed, scared almost out of his wits. His story seemed beyond credence. Three horrible-looking beings had dashed at him as he was passing a thicket—living devils as he put it, blood-stained, slobbering, inhuman-looking things. Only the fright of his skittish mare had saved him. At sight of the three she had bolted and had left the attackers far behind. Half an hour after the farmer had arrived, a telephone call from Guildford reported that a motor car with two young chaps from Farnham had been attacked while on the Hogback by two of the most repulsive and terrible of human beings. Fortunately one of the motorists had been in possession of a gun—they had been hunting—and at close range he had blown the head of one of the attackers from its shoulders. But the other had given no heed and had thrown itself at the car with maniacal fury. A terrific struggle had ensued, the motorists had been torn, scratched, bitten, their clothes ripped from them, and only when they had beaten the inhuman creature into insensibility had he ceased his frantic efforts to destroy them.

By midday the entire country had been aroused. Somewhere at least four murderous, horrible beings were at large. No one felt safe, and the countryside was in a state of terror. Yet far worse was to come.

Major Stephen Leighton, R.A.F., Takes Up the Story

THE extra editions of the press carrying the astonishing news of the appearance of a mysterious airship at Ripley, and describing the grewsome murders at the Antelope Inn and those of the Gypsies, aroused my intense interest. Although Doctor Grayson's description of the airship was most inadequate and superficial, even he had noticed that it was of a new type, and this was borne out by the little he mentioned in regard to its construction. Having specialized on dirigibles of the rigid type I was, of course, most keen on examining this strange ship and I immediately sent for my car and dashed off to Ripley.

JUST beyond Cobham we passed the Gypsy caravan surrounded by quite a throng of morbidly curious persons, and we found Ripley as crowded as though a fair were being held in the village. Constable Moore, Doctor Grayson and the police sent from Guildford had the situation well in hand, however, and a cordon had been drawn about the Antelope Inn and the field where the airship rested. At my first glance at the remarkable ship I realized fully that it was of a totally new type, and I was quite naturally highly elated.

The gas-container was, as Doctor Grayson had surmised, of metal, although of what metal I could not imagine. But the doctor had erred considerably in his statements regarding the other features of the ship. The car or gondola, instead of being an integral portion of the whole, as he had described it, was attached to the balloon by means of short, rigid struts, and between the top of the gondola and the lower surface of the blunt-ended, almost elliptical, balloon a cylindrical tube of metal extended the entire length of the ship, bearing, at each end, a four-bladed propeller. Obviously, I thought, the motive power was contained within this tube, and I marveled that a motor of sufficient size to drive the ship could be contained within such a small space. The horizontal and vertical rudders were similar to those of conventional design, but were attached to a rigid framework on the gondola instead of on the balloon itself, and were in duplicate, one set on each end of the ship. I also noticed that a peculiar grid-like affair of wire—somewhat resembling the counterpoise of a radio receiver—was stretched between the cylinder I have mentioned and the top of the gondola, but I assumed that this, no doubt, was some form of radio antennæ. The gondola, of some undetermined metal or metallic composition, contained nothing aside from the filthy straw mentioned by Doctor Grayson, several demijohn-like vessels and a number of beef bones. It looked far more like the den of wild beasts than the quarters of human beings, and as it smelled to high heaven I wasted no time in examining it in detail. Borrowing a ladder, I mounted to the top of the gondola for the purpose of examining the motive plant of the ship. But to my chagrin I discovered that the tube within which it evidently was contained, was tightly sealed, the plates of which it was constructed being bolted down, and that tools would be required to remove them. Securing my tool-kit from my car I again climbed to the roof of the gondola, accompanied by Doctor Grayson who had just emerged from the inn where he had been attending the inquest with the Guildford coroner. It was then that I learned, for the first time, the details of the mutilation of the Gypsies' bodies, and learned of the dead stranger and the reports of those other five maniacal fiends who had attacked the farmer from East Clacton and the motorists from Farnham. Doctor Grayson—whom I had already met at my club—confided his theories to me, and having already viewed the den-like interior of the gondola, I was inclined to agree with him that the six (or possibly more) repulsive and obviously savage strangers had arrived in the ship I was now studying. But I could not for the life of me understand whence they could have come, who they might be, or why they should have hurried from the ship and fallen like maniacs upon all they met.

And as I took the trouble to explain to Doctor Grayson, while I busied myself with a spanner and loosened the nuts on the tube's plates, such evidently uncouth, thug-like beings could not possibly have handled and

navigated the airship. Someone, some intelligent, skilled man or men must have been aboard, and this fact added greatly to the mystery of the whole affair. Thought of this feature caused me to marvel at the fact that, as far as I had seen, there were no controls to the ship. There was no cockpit, no bridge, no instrument-board, no levers nor wheels, no dials—nothing that hinted at controlling the vessel—and I forgot everything else in my amazement at this discovery. But I had an even greater surprise awaiting me. As I at last removed the plate and peered within the cylinder, expecting to see the motors of the ship, I uttered a sharp cry of astonishment. There were no motors visible!

Instead, I saw a complex arrangement of wires, magnets, switches and other electrical apparatus. For a moment I was non-plussed, and then it dawned upon me that the ship was propelled by electric motors. Filled with curiosity I called to my chauffeur—an excellent mechanic and a really clever electrician—and together we proceeded to open up the cylindrical container throughout its entire length. While occupied with this task I was aware of some excitement in the crowd that now completely blocked all traffic in the street. Presently Doctor Grayson returned and informed me that a party of picnickers at Netley Heath had been attacked by three fiends who answered the description given by the farmer from East Clacton. One man had been killed, another badly wounded, and the two women of the party had been violated and wantonly mutilated by their attackers who had bitten off the murdered girls' ears.

THE details of the affair were far too horrible and loathsome to repeat, and so terrible was their experience that both women had lost their reason and were now raving maniacs. The wounded man, however, had been able to give a very good description of the creatures. They were, he declared, almost nude, were covered with sores or ulcers, and were as horrible in appearance as fiends from the pit. All were huge, powerful creatures, all had deformed, horrible features and all had the heads of idiots. Two of them, he declared, were negroes or blacks of some sort, and one, he had noticed, had a great cavity eaten into one side of the face as if by some powerful acid. He also told, shuddering and sobbing with horror at the memory, of having seen one of the creatures fall upon the body of his companion, and with its teeth tear the reeking flesh from the limbs and actually devour it.

Doctor Grayson paled and his voice shook as he told me these details. "I cannot imagine who or what these fiends incarnate are," he declared. "The body we found at the Gypsy caravan was afflicted with Yaws—a terribly virulent and contagious malady of the tropics. These three evidently were suffering from the same disease, and the fact that two were blacks would indicate they were all from some tropical country. And I am now convinced that the one we found dead was also a negro—an albino. Thank heaven, now we know where or near where they are we can soon apprehend them or destroy them. And thank God there cannot be more than four. The entire countryside is aroused, all available police, and possés of citizens are scouring the woods, the heaths and the parks, and I expect at any moment to learn of the capture of the fiends. But even so I have most dire misgivings, Major. If the creatures have not spread their loathsome disease, it will be by the merest chance they have not. Beyond any question the two women who were attacked will contract it; I have no doubt that this poor wounded chap will be afflicted with it, and I should not be at all surprised if the two boys who were held up on the Hogback had been infected when scratched by their assailants."

"Rotten," I commented. "But are you sure it's the Yaws? And is there nothing to be done to cure it—to prevent it from spreading?"

Doctor Grayson shook his head. "In my younger days," he informed me, "I was attached to the Department of Research of Tropical Diseases in the West Indies, and later in Africa. I think I know Yaws when I see the disease, and as far as I or any other medico knows, it is incurable. Of course, it might be something else—leprosy is at times indistinguishable by a superficial examination, or some one of the innumerable filarial diseases of the tropics. But whatever it is, I dread the thought of what may follow if these creatures remain longer at large."

"By Jove!" I cried. "It *is* a pretty how-de-do. By the way, did you learn anything from the body of the beast killed on the Hogback?"

"I haven't examined it personally," replied the doctor, "but Doctor Mell of Guildford was conversing with me a few moments ago and he tells me it was that of a mulatto or octoroon, that the cranium—or rather what was left of it after it had received both barrels of a twenty-gauge shotgun at close range—appeared to be that of a maniac, and that the creature was afflicted with some sort of ulcerated sores. Evidently all are alike in these features."

"Bally rotten, the whole business," I exclaimed. "Looks as if some insane asylum was dumping its ulcerated, homicidal maniacs on poor old England. But how did they manage to get here? That's the question that's bothering me. No doubt they arrived in this ship—the pigsty down below is just the sort of den for such brutes—but they could never have operated this ship alone. Someone of intelligence must have been with them. But where the devil has he gone?"

Doctor Grayson shook his head. "God alone knows the answer to a lot of questions," he replied. "But—"

An exclamation from Rawlins, my mechanic, interrupted his words, and I hurried to Rawlins' side. He had removed the plates from a large section of the tube and had exposed the powerful compact motors that operated the propellers. But it was not these that had aroused his most intense interest and excitement.

"This ship was operated by radio, sir," he announced in almost awed tones. "See here, sir. Yonder's the relays; there are the selective devices."

For a moment I studied the intricate mechanism intently, filled with interest. I had, of course, witnessed demonstrations of radio-controlled and operated vessels, airships and even an airplane. But in no case had the tests been very successful, and in no case had it been possible to control a mechanism at any considerable distance from the transmitting station. Yet if Rawlins was right, and if Doctor Grayson was not mistaken, this ship had come a great distance—perhaps thousands of miles—by means of radio control from some far distant station. It seemed impossible, incredible, and the more I examined the mechanism, the more I was convinced that Rawlins was mistaken. To be sure, there was no question that the propellers were driven by motors which, superficially at least, appeared like electric motors. And at first sight the objects he had pointed out *did* seem to be relays and selective devices, but I could detect none of the appliances that are typical of radio control. The thing needed real study, expert examination and a complete investigation such as could not be conducted here in the open air. So, instructing Rawlins to replace the cover plates, I climbed to the earth and telephoned to Aldershot for a couple of lorries and a detail of men to be sent at once to dismantle and remove the airship.

Almost coincident with their arrival, word was received by Inspector Maidstone, who was still in Ripley,

informing him that the savage being—obviously the survivor of the pair that had attacked the motorists on the Hogback—had been surrounded in a thicket near Compton. The man had rushed like a wild beast at the police, and so maniacal was his fury, so terrible his rage, so demoniacal his strength, that the constables had been forced to shoot him in self defense. Even as it was, three of the men had been seriously wounded, and not one had escaped without lacerations from the fiendish thing's nails and teeth.

As I was thereafter most busily engaged in superintending the examination of the airship's mechanism at Aldershot, I had no first-hand information of the series of events that occurred during the next few days. But the news that came to me through the press and the Air Ministry was most astounding and disconcerting. On the morning following the discovery of the mysterious ship at Ripley, two more, precisely like the first, were found. One near Hayward's Heath in Sussex, the other at Sutton Valance in Kent. In both cases the gondolas were found open, in both cases the interiors presented the same conditions as had the first, and in both cases horrible crimes and most revolting murders occurred in the vicinity of the spots where the ships landed. Moreover, as in the first case, the murders were committed by loathsome, ferocious maniacs, apparently negroes or mulattoes who, it was deduced, had arrived in the mysterious aircraft.

By this time the entire country had become thoroughly aroused. The police had been armed in all rural districts, all citizens who went about the country were in constant fear and trembling of an attack, and everyone who could secure firearms went prepared to shoot down the terrible fiendish beings on sight. Fortunately those who had—supposedly—arrived in the ship that landed at Hayward's Heath, were destroyed before they had committed many atrocities. Two of them attempted to hold up a Brighton motor-coach and were run down and crushed beneath the vehicle's wheels, the driver of the coach having exhibited great presence of mind by swerving directly towards the creatures who, apparently, had no fear of the ponderous vehicle. Two more were gored and killed by a savage bull as they crossed a pasture, and the remaining two (I say remaining two as only six were seen and no others appeared after the six had been killed) were destroyed by farmers who, armed with guns, were patrolling the lanes in the vicinity. Those that had landed at Sutton Valance, on the other hand, were still at large, and almost hourly stories of new atrocities committed by them were reported by the newspapers.

By the morning of the third day, more than a dozen of the strange aircraft had dropped upon English soil, and each had vomited its crew of maniacal negro murderers. Some had landed on the Norfolk coast, some in the Midland, others in the western counties, and one had dropped to earth within a few miles of Windsor. From everywhere came terrifying reports of murder and mutilations by the horde of revolting, terrible beings who had arrived in these silent, mystifying dirigibles. England was being cursed with them, the country was in a reign of terror, and although police, citizens and soldiers hunted them down like wild beasts and accounted for dozens of them, still many were roaming the country, attacking everyone they met, killing and mutilating and—so Doctor Grayson and other eminent medical men gravely feared—were spreading the loathsome diseases with which they were afflicted.

IN the meantime we had dissected the complicated machinery of the first arrived airship, and although no one—not even Sir Bertram Fielding, the greatest living authority on radio-controlled vessels—could make head or tail of the apparatus, all—including Sir Bertram—agreed that it was not actuated by radio as we knew it, but was operated and controlled by some unknown form of vibratory wave akin to the electro-magnetic waves but quite distinct. With so many of the vessels available, we could afford to tear them to bits, and we went at it with a will, for, as far as we could see, our only hope of preventing the things from landing, or of destroying them, was to learn the secrets of their mechanisms and to install some device for controlling them from our end so as to deflect them and force them to drop into the sea. Possibly I have not made my meaning clear, for being so accustomed to writing in purely technical terms, I find it a bit difficult to express myself in ordinary popular language. What I mean to say is this: we all (meaning the officials of the Air Ministry and of the R. A. F.) were convinced that the damnable ships with their living cargoes of fiends were being sent with devilish ingenuity and intention to England; that they were being dispatched from some one point abroad, by some enemy of the British, and were of course propelled and directed by some form of vibratory wave. Hence, if we could learn the secret of these waves; if we could, by intensive study and observation, discover how to transmit them, and how to operate the ships from our station, we could—being nearer them—divert them, and then, when over the sea, force them down. It must not, however, be assumed that we had gone about solving this problem without taking every precaution and availing ourselves of every resource to combat and destroy the things before they dropped on England. From the very first—or rather after the second and third ships had arrived—the entire available air forces of Great Britain had been ordered into active service. Hundreds, thousands of planes cruised over England day and night constantly searching for the black, metallic, death-carrying dirigibles. Great searchlights played constantly upon the sky from dark until dawn. A cordon of swift destroyers had been drawn about the coasts, and every effort had been made to detect and destroy the terrible things before they dropped to the earth. And although two of the dirigibles had been spotted and brought down—one off Deal and the other between Chichester and Midhurst—others got safely through our lines. Being black, carrying no light, emitting no roar of motor-exhausts, the things were next to invisible at night. And they moved with incredible speed.

Several that were spotted and chased outdistanced our fastest scout planes as if they had been standing still, and Captain Morris, who sighted one of the things over Maidstone and gave chase in his Napier Rocket (capable of traveling more than three hundred miles an hour), reported that the dirigible gained on him rapidly and soon vanished in the darkness.

The two that had been brought down were destroyed more by accident than by design. The one over Deal had been sighted by an anti-aircraft crew and by a very lucky shot had been brought down to fall into the sea. The other had been spotted by a bomber, whose crew, by the merest chance, had dropped a bomb upon the thing as it had flashed, at terrific speed, beneath the plane.

But even though the dirigible crashed to the earth in a deserted part of the South Downs, its destruction was of no avail, for when the plane that had destroyed the thing landed, the gondola was found intact with the door open and the occupants gone.

Our only hope then, lay in either tracing the dirigibles to their source or in discovering their secrets, both matters that would necessitate slow, patient, unremitting study, and that would require a great deal of time. And time was most important, for nightly more and

more of the things were landing, daily more and more people were being murdered, mutilated. Although, by the end of the first week, the fiendish maniacs who arrived in the night seldom remained alive more than a few hours—so well was the country patrolled by police, armed citizens and the army—still, in the few hours they were at large they murdered hundreds of people, wounded hundreds more and committed every conceivable atrocity.

Inspector Maidstone Tells the Story

As Doctor Grayson and Major Leighton have mentioned, I was called to Ripley in Surrey, by the local constable, Robert Moore, who reported the arrival of a mysterious, unidentified airship, and the equally mysterious murders of four occupants of the Antelope Inn and of five unknown Gypsies who had been encamped with their caravan near Cobham. As Doctor Grayson has already described all the essential details of the murders and the conditions existing before my arrival, it is not necessary for me to repeat them. Neither is it essential that I should more than briefly mention the dastardly attack upon the picnickers at Netley Heath and the attack upon the motorists at the Hogback.

I arrived at Ripley to find Doctor Richard Morrison, the Guildford coroner, already on the spot. He had, in fact, commenced his examination of the bodies of the unfortunate inmates of the *Antelope*. As Doctor Grayson has mentioned, and as he pointed out to Doctor Morrison, the wounds that had caused death were most unusual, and it was evident to all of us, after a brief examination, that they had been inflicted, not by any weapon, but by the murderers' bare hands. Possibly we would have doubted this had not Doctor Grayson told us of the discovery of the dead body of a repulsively horrible man at the scene of the Gypsy murders. His description of the dead man's talon-like nails, his powerful teeth—still holding (as we discovered later) fragments of human flesh in their grip, and the condition of the Gypsies' bodies, convinced us that the fellow and his companions were ferocious homicidal maniacs. Moreover, we agreed with Doctor Grayson that he (with the others) had arrived by the airship.

It seemed a very simple affair from the detective's point of view. We knew, or assumed we knew, who the murderers were, one of them (of course, at that time we had no means of knowing if there were others) was dead and we had merely to trail the others (if any), arrest them and the whole affair was at an end. In fact, the greatest mysteries to be solved appeared to be the origin and identity of the dirigible and the identity of the murderers, also why they had arrived and from where. But I soon found that to trace the murderers and to arrest them were far from easy tasks. I had thought that strangers, so easily recognized, so remarkable in appearance as these must be (judging from the one whose body had been found by Doctor Grayson) would be easily traced. And I assumed that once they were located it would be a simple matter to place them under arrest. So accustomed are we of the British police to meeting with little or no resistance, the average British citizen having an inborn respect for the representatives of the law, that it did not occur to me that we would have any difficulties in this respect. Neither did I (at the time) take into consideration that the men we had to deal with were (as far as we could judge by the one killed by the Gypsies) maniacs, and hence would not recognize the police as such and would not be subject to the same regard for the police authority as sane persons. And I was very soon to learn that the only traces of their presence left by these malefactors were in the form of heinous crimes. Before I had even time to call up headquarters and set the machinery of the law in motion, Benjamin Butler, a farmer of West Clandon, arrived in Ripley and reported having been attacked by the maniacs near East Clandon.

As Doctor Grayson has described, Butler escaped, and I at once got into communication with the constables at East and West Clandon, Clandon Park, Merrow, Albury, Gomshall, Westcott, Dorking, Mickleham, Plesdon, and East Horsley, thus completely encircling the district with patrols and (so I thought) making certain that the murderous thugs would be apprehended within an hour or two. I had scarcely finished giving my instructions when word came of the attack on the motorists on the Hogback, and I at once communicated with the constabulary of all towns and villages in that vicinity. Feeling now confident that the net had been spread for the quarry, I interrogated Doctor Grayson at greater length, interviewed Moore the local constable, talked with Jared Dunne the mail-carrier, with the man Timothy Newbald, and had a word or two with Major Leighton who had just arrived with his chauffeur to examine the airship. While speaking with him, I was summoned to the telephone and received the astounding and horrifying news of the rapine and murder committed at Netley Heath. Here the murderers had appeared within a mile of East Clandon and in the midst of the cordon of police I had ordered to search the entire district. And they had gotten away without leaving a trace. I immediately ordered additional men to the neighborhood and was preparing to take charge of the man-hunt in person, when I received the comforting news of the murderer at Compton having been killed, although I regretted exceedingly the injuries the police had received in their efforts to capture him alive. Obviously the beings were maniacs and could not be treated like ordinary mortals, and I hurriedly got in touch with the authorities, secured orders for revolvers and ammunition to be distributed among all the members of the police force in the neighborhood, and gave orders to all constables (as well as private citizens) to shoot the maniacs on sight.

It was, I admit, a high-handed proceeding, but I considered that the conditions warranted it; but as usual certain meddlesome individuals with a mawkish sentiment for all criminals got me into very hot water, indeed. No sooner had news of my actions been spread, than extra papers blared the facts in glaring headlines, and within half an hour I was peremptorily summoned to London.

It seemed that a tremendous uproar had been created in certain circles, and Scotland Yard had been swamped with protests, denunciations and appeals—all in no measured terms, voicing opinions of an Inspector of Police who would order irresponsible, helpless maniacs shot down in cold blood. In vain I protested that these men were red-handed, vicious, terrible murderers; that they were beyond all pale of the law or common humanity; that to attempt to capture them would result in the deaths of honest, innocent men, and that any citizen meeting them and not killing them on sight would (in all likelihood) be killed (or worse) himself. No, the law gave me no authority to order any man killed (except in self-defense). That was a matter for judge and jury. My duty was to capture them (even if by so doing lives were sacrificed). I was severely reprimanded and requested to resign from the force. But before I could reply, my chief answered a telephone call, and instantly his expression changed. "My God!" I heard him mutter, "It's terrible, horrible!"

He replaced the instrument and turned to me. "From

Hawley," he exclaimed, "three of the—the maniacs raided the village not fifteen minutes ago. They killed sixteen people and wounded a dozen more. And—God, Inspector, it's too horrible—the fiends were seen eating—actually devouring—the bodies! And they got clean away."

"Sorry," I said tersely. "If my orders had not been countermanded, this could not have happened, but as the murderers—cannibals—are poor, deluded, helpless maniacs not responsible for their acts, I suppose we can afford to permit useful citizens to be destroyed in the name of humanity."

The chief's fist struck the desk with a bang. "By the Lord, No!" he shouted. "Not by a long shot! Get back on your job, Maidstone, and use any means—*any means*, mind you, to stop this devilish business. *Any means* as long as you wipe these creatures from existence. And damn these sentimentalists!" "It's about time," I remarked, as I turned to go, "do you realize what red tape has cost us already? Twenty-six deaths and two women driven insane by six maniacs within six hours! Nearly five an hour. I—"

The telephone bell interrupted me. "Thank Heaven!" I heard the chief say, relief in his voice. Then, as he hung up, "It's over," he informed me. "The three brutes are dead—literally cut to ribbons. The villagers, aroused, infuriated, gave chase with any weapons they could grasp and chopped the things to pieces with bill-hooks, scythes and hay-knives. Thank God that accounts for all of them—if only six were at large."

"We'll soon know," I replied. "If any of the beasts still live we'll soon have reports of more outrages."

But as no further attacks were reported, we felt confident all the maniacs had been destroyed. Little did we know what was in store; and had we known I doubt if we could have done a great deal to have stopped the terrible calamity that was to fall upon England.

Doctor Grayson Resumes His Story

AFTER my short conversation with Major Leighton, who was ripping open the portion of the dirigible that contained its machinery, I drove off towards Cobham and joined the coroner, who had just completed his inquest on the bodies of the murdered Gypsies and the dead albino negro. "If you have no objection," I said, "I would like permission to remove the body of the murderer. I feel that it is essential that we determine absolutely and beyond question the exact nature of the disease with which he was afflicted—that I conduct a thorough microscopic bacterial examination."

"Nonsense!" he ejaculated. "You diagnosed it as the Yaws. You know far more of tropical diseases than I do and I'm willing to take your word for it."

"Thank you for your appreciation of my knowledge," I smiled. "But in my tropical experience I learned that the one important fact—the one fact that impressed me the most—is that we know practically nothing of tropical diseases, especially of those of filarial origin. I have known of dozens of cases of malignant, advanced leprosy that were diagnosed as Yaws, and of as many, if not more, cases of Yaws that were classed as leprosy. And there are scores of diseases that—superficially—resemble either Yaws or leprosy, but are quite distinct; diseases of which we know little or nothing, but which are most malignant, virulent and contagious. Only by a bacterial study of the blood or pus is it possible to arrive at any definite diagnosis—and even then we are often at a loss. And if, as I fear, these creatures have spread disease throughout this district, it is most important that we have definite knowledge of its character, so that we may warn the public of the symptoms and prepare to combat it."

"H-mm," observed the coronor. "So you really think there may be danger of an epidemic. I cannot say I agree with you. Whatever it is, it is a tropical malady and would not develop in our climate. Why, man, I've known of cases of tropical diseases that, here in England, vanished like magic. I—"

"Quite true," I agreed, interrupting him. "But I think you will find that in such cases the patients arrived during the winter, or remained here over the winter. Our summers are warm enough to encourage tropical diseases, and, quite frequently, tropical diseases appear to become more virulent and to progress with far greater rapidity in the north than in the tropics. At all events I shall not rest easy nor feel that I have done my duty until I have assured myself of the identity of the disease with which this creature—and probably his fellows—is afflicted."

"Have it your own way, Grayson!" he exclaimed. "It matters nothing to me. You have my permission to make any disposition you wish of the body."

As I possessed no adequate facilities in my Ripley home for conducting the post-mortem and the exhaustive examinations I planned, I had the cadaver sent to London, and for some days devoted myself assiduously to the highly unpleasant task I had set myself.

During this time most alarming and terrible events were taking place, but as Major Leighton has already given a very comprehensive résumé of these developments I need not repeat them, but will confine myself to my own personal activities and discoveries.

As I had suspected, the deceased man had been suffering from a most malignant form of Yaws, but in addition he had been afflicted with leprosy, Ryndal's disease and some disease that I could not identify. Cultures and inoculations tested on guinea-pigs, rabbits and monkeys proved that the latter was even more contagious and more rapid in its development than the terrible Ryndal's disease, which, as is well known, utterly destroys all sense of morality and humanity and results in producing a homicidal mania in its victims, and which, though not contagious by ordinary means or personal contact, and which as far as known, has no insect-carriers, may yet be transmitted readily through the slightest abrasion of the skin. Hence I felt certain that every person who had been wounded or scratched by the maniacal creatures would, almost inevitably, develop this most terrible of tropical maladies. Fortunately, however, I had, while working in the West Indies, discovered, or I may better say, had developed, in company with Doctor Sir Ian Maxwell, an antitoxin that, administered in time, prevented the dreaded disease from developing beyond its primary stages and eventually eliminated it from the system. But to produce the antidote in sufficient quantities to inoculate all the victims injured by the ever-increasing number of infected maniacs, who were dropping nightly from the skies, required time, and to be efficacious, it was essential that it should be used within forty-eight hours after the germs of Ryndal's disease had been transmitted.

Needless to say, every resource of the Royal Laboratories was placed at my disposal, once my report had been made, and the antitoxin was being produced as rapidly as possible. As fast as it was made it was being distributed throughout the districts that had been cursed by the murderous beings arriving in the strange and still inexplicable airships. But there were certain discoveries that I made during my examinations of the cadaver that in some respects overshadowed my determination of the several diseases.

To my amazement I found, upon dissecting the brain of the creatures, that the abnormality of that organ was not due to natural causes or to disease, but had been artificially produced. In other words, the creature had been operated upon during youth, or at least several years previous to my examination, and a portion of the cerebellum had been removed. There was no question of this. The incision (perfectly healed to be sure) in the skull was plain, and the scar in the brain itself was readily distinguishable.

But to make assurance doubly sure, I secured the crania of several more of the maniacs, and in each case found precisely the same conditions. Moreover, I found that, beyond any question, the beings had been inoculated with the diseases from which they were suffering. Only one conclusion could result from these astounding discoveries. The murderous creatures—I cannot bring myself to call them men—had purposely been transformed to maniacs; they had been coldbloodedly inoculated with Ryndal's disease in order to insure their becoming potential murderers, and had been inoculated with the two most loathsome and little known of contagious diseases with the devilish idea of spreading these diseases. The whole thing was a plot, a deep-laid, unspeakably fiendish plot, that must have required years to consummate, and that was aimed at the inhabitants of England. Who, what nation, what devilish master-mind could have conceived such a monstrous thing, I could not even guess. But there was one thing certain. Some arch-enemy of our country had evolved this scheme to destroy us and, unless some means were devised to check it, it would succeed.

I shuddered and felt sick at the mere thought of thousands of our citizens becoming raving, homicidal maniacs, of thousands—tens of thousands—suffering the awful living death of lepers, of hundreds of thousands covered with the loathsome ulcers of the Yaws. Far more fortunate were those who died at the hands and teeth of these brainless, horrible, death-dealing machines in human form. But now that I had in a small measure solved the mystery of the murderers and their purpose, my duty was clear. I must devote every energy, every effort to minimizing the spread of the diseases—I did not flatter myself that they could be completely checked—and must leave the rest to the government. I hurried to Whitehall and sought an immediate interview with Sir Kenyon McDonald. Thanks to the fact that my activities and suggestions had already accomplished results in several cases where Ryndal's disease had developed, Sir Kenyon received me at once. The chief of Great Britain's Secret Service listened with deep attention to my revelations, his keen, gray eyes under their bushy brows like pin-points, his hawk-like face set and stern.

"The swine!" he commented. "The most damnable, utterly fiendish and amazing plot to destroy a nation that the world has ever known. No war ever held such horrible, dastardly means of destruction. Gas, submarines, bombs—all are humane, insignificant, merciful, compared with this. And why, why, *why*? England is not at war with any nation. We have no enemies that would resort to such atrocities. What—by Heaven, Doctor I— But never mind. You have rendered your nation a great, an immeasurable service by what you have told me. But for the present, at least until I give my approval—say nothing of what you know."

Jimmy Nash Takes Up the Tale

HONESTLY I don't know just how to begin. After reading all that Doctor Grayson and Major Leighton and Inspector Maidstone have written, there doesn't seem much more for me to say. And there isn't anything that happened that they have told, that I knew as much about as they did, anyway.

Everything was kept pretty secret, and about all anyone knew of what was going on was that the black airships were dropping down here, there and everywhere in England, and every time one came down a crowd of crazy, blood-thirsty negroes were let loose to murder anyone and everyone they met until they were killed off like rats. Nobody outside the government officials knew that Major Leighton was working like the devil to find out how the dirigibles worked. Nobody knew what the disease was that the negroes spread, or that it would turn peaceful people into murderers and, of course, no one knew that Doctor Grayson had discovered that the negroes had been made crazy and had been infected just to raise the devil with England. That's a great thing about England. Everything is done on the Q. T. until it's all over but the shouting. In the States everyone on the streets would know a darn sight more about what was going on than the ones who were doing it, and every paper would have three-inch headlines about it before it happened. But over here mum's the word about anything that the officials think the people shouldn't know until they're ready to tell them. Now take this business, for instance. If the papers had said the airships were being sent from some place by radio or something of the sort, and that all the army and navy couldn't stop them, and the best experts were all at sea about how they worked, and if the public had known every time one of the maniacs scratched a man or a woman, he or she'd be liable to become a crazy murderer, everyone would have been scared to death. And if they'd known some damnable enemy had been scheming for years to do this, and had been making maniacs loaded with diseases just to send them over here, and that no one knew who the enemy was or where they came from, everyone would have gone up in the air and raised Ned. So I guess it's just as well to keep things mum the way they do. And maybe it's because the lawbreakers don't know what the bobbies are doing that mighty few of them get clear. Well, I seem to be getting off the trolley a bit and not saying anything about the things that happened or where I came into the picture.

In the first place I'm an American, and so I wouldn't have had the chance to know what was going on that an English chap would, anyway. And in the second place, the part I took in the thing was all by accident and no thanks to me or my brains. I was over here partly on business and partly on pleasure; my business being the bee in my bonnet over a new kind of light that a pal of mine had invented.

You see he'd been associated with one of the big radio companies and had got interested in radio television and had been carrying on a lot of experiments. I don't know how far he got with that end of the business, but I used to go to his laboratory and watch him and now and then I'd ask some questions or make some suggestion and we'd have a lot of fun trying out my crazy ideas. Sometimes they'd work and sometimes they wouldn't, but being a professional photographer and knowing something about that business, he used to depend a lot on me when it came to matters that had anything to do with lenses or sensitive plates and so on. You see, Bob was working along new lines. He didn't have much faith in the Baird method or any of the others that had been invented. He claimed that even when pictures were sent by radio by those methods they weren't in natural colors and that even when they did show color they had to be sent from a special place all fixed up with certain kinds of light and surroundings. What he was after was a scheme

for broadcasting scenes and people just as they were naturally, here, there and the other place. That is, to say, with his device—that is, the way he imagined it—a man could set up a machine in the street or anywhere else and set the thing going and the receiver at the other end would get the picture, just as he saw it, with the sounds all there. It would be like a talky-movie without a film, only better, and Bob thought the only way to get it would be with a combination camera-radio outfit of some sort.

That's why he got me interested in his work and depended on me to help him out on the photography end of it. Well, to make a long story short, we began to get results. I can't say just how it was arranged, because Bob hasn't perfected it yet and hasn't got out his patents and I might spill the beans if I went into details. Anyhow, it was a great day when we set up the machine he'd made and pointed it out of the window at the street and adjusted the receiver over at the other end of the laboratory. Bob was to operate the taking machine and I was to look into the receiver and see what happened.

Well, I was just about knocked out when he started things going and there before me on the screen I saw the motor cars go whizzing by and folks walking on the sidewalks and a newsie handing a *Telegram* to an old man on the corner, and I heard the honking claxons and the traffic-cop's whistle and all. It was just like looking at a talkie, because there wasn't any color, but just all black and white. Bob was mighty disappointed. But I thought it wonderful and told him so. But he said he'd failed and his invention wasn't any better than the others, and natural colors were what he was after, and if he couldn't get them, he'd junk the whole thing. Well, of course, I could see that colors would be a lot better, so we got busy again. About that time I'd been doing a lot of work with color-screens and I'd been reading up on color photography and everything I could get hold of on color. One of the things that impressed me was that according to what I'd read there really wasn't any such thing as color anyhow. It was all a matter of waves. Light was just vibratory waves like radio waves and heat was another kind of waves, and heat waves could be made into light waves and *vice-versa*. It was all just a matter of the length of the waves whether a thing was blue or green or red or any other color. But, of course, everyone knows that, so it's just wasting time to talk about it. Well, anyhow, *I* hadn't known it before and it seemed a wonderful thing to me and set me thinking.

I laid awake pretty near all night thinking about it. If a fellow could make a piece of black iron into red iron, or even white iron, just by heating it until the heat waves became visible as color waves, then why couldn't a fellow make some sort of device for changing any kind of color waves into some other kind of color waves? And by reasoning backward, what was it in Bob's machine that picked up the color waves and changed them so they were just black and white? Of course, I knew the reason that color waves striking a sensitized film or plate were recorded in black and white was because the chemicals on the film were that kind, and could only turn black and not into colors. But Bob's arrangement wasn't like that. It wasn't a chemical thing like a plate, but the real thing shown on a screen. That is, the original rays—all in colors—were picked up and transformed to radio waves and then picked up by the receiver and changed back to light-waves.

But somewhere in the process they must have been changed, because when they were changed back from radio-waves to light-waves they'd lost all the variations that meant color. That was what I kept thinking all night. It was just as if the picture had been viewed through some sort of screen that cut out the color effect. You know how, when you look through a smoked glass, the colors sort of disappear, and if you look through a green or red glass how some colors look black and others gray and you lose the color values. Well, the effect of Bob's machine was like that. Only, of course, there wasn't any red or green or smoked effect so far as you could see.

THEN I began to think about the effect of color-screens used in taking pictures and how a yellow screen cut out the blue light and brought out color value on the plate, and I began to wonder if Bob couldn't rig up some sort of screen in front of his machine and solve the problem. I guess I went to sleep then, for the next thing I knew it was daylight. Well, I lay there in bed a while thinking over all I'd thought about in the night, and I noticed a ray of sunshine shining in through a chink in the shade and striking on my bed. All of a sudden I got interested. The ray of light looked yellow all right, but where it hit the sheet it made a blue patch. Gosh, I thought to myself, that's funny. What's changed that light ray to a blue ray? Well, of course, it was as simple as two and two. The light was reflected from the edge of a glass on my dresser, but the glass was red, not blue, and it took me a long time to figure out how the blue rays were bent off and hit the bed while the red rays were shot through the glass.

I couldn't see that it had anything to do with Bob's puzzle though, but when I told Bob about all I'd been thinking about and the sunlight and everything he jumped up in the air and yelled.

"Hurrah!" he shouted. "You're the right man in the right place, Jimmy! I believe you've struck the nail on the head."

I told him I didn't see how, and asked him to explain. Well, the way he explained it was this. What he needed was a light ray of some sort. In transforming light-waves to radio-waves, they lost their relative lengths and all had the same length, so they became white light-waves. Then he went into a long rigamarole about infra-red rays and X-rays, and so on, that I couldn't follow, but the upshot of it was that there must be something in existence that we didn't see and didn't know about that controlled the light-waves' lengths, but was lost when they were changed to radio-waves. And he felt cocksure that it was some sort of wave or ray. Well, he spent about ten days reading everything he could find on rays and he filled up a dozen notebooks with notes on chemical-rays, and death-rays and poison-rays and every kind of ray, real or imaginary, that had ever been invented or made or discovered or faked. He was just ray-crazy, and he spent all the money he had—which wasn't such a lot at that—on apparatus and chemicals and what not. And the things he did! Gee, I never saw anything like it. He made one ray that looked like a white light, but that would burn paper half-way across the room. And he made one that you couldn't see, but when he turned it on a colored thing the thing changed color. He'd focus it on a red thing, and, believe it or not, the thing would be bright blue; if he turned it on a green thing it would be purple, and so on. He called it an interference ray and explained how it worked, but Gosh, I don't remember now, and anyhow it doesn't have a bearing on the case. Well, I couldn't see as he was getting any nearer to solving his puzzle, but he thought he was, and one morning when I came in he was ready to dance he was so excited.

"I believe I've struck it at last," he yelled. "Hurry up, get over back of the receiver and we'll test it."

"Great jumping jiminy crickets!" I yelled, when he turned on the machine. It was just like looking at the street through the wrong end of a field glass. Everything perfect and natural colors, but reduced, and all the sounds perfect as could be. There was only one trouble. The sounds were too loud for the picture. It didn't seem right to hear a motor-car half an inch long toot a horn that could be heard all over the room, or to hear a tiny figure of a traffic-cop blow a speck of a whistle so loud it made your ears ring. But Bob didn't mind that. He said he could enlarge the picture to suit the sounds or reduce the sounds to harmonize with the picture, and he was as near crazy over what he'd done as I ever expect to see anybody. But he wouldn't tell me much about his ray. As a matter of fact, I don't believe he knew much about it himself. All I could get out of him was that he passed a sort of X-ray through a grid or screen treated with some radio-active composition and got the results. He said it was analogous (I got that word from him just as he said it) to passing the electrons from the filament of a radio tube to the plate through a grid. Not knowing a darned thing about radio, except that the family which rooms below me in Earl's Court keeps the darned radio going so I can't sleep, Bob's explanation didn't mean much. But the idea I got was that it sort of straightened out the wave-lengths of colors so they came through O. K.

"But, Jimmy, that's not the half of it," he said. "This new ray's got properties that are going to revolutionize a lot of things. And it will interest you because with it you can take photographs in the dark."

"Tell me another," I came back at him. "Don't try to kid me on photography just because I'm a dumbell on radio."

"I'm not trying to kid you," he says. "I can prove it to you. Just you darken this room."

"Go to it," I told him.

Well, the long and short of it was that we darkened the room as well as we could (and it was plenty dark at that) and I set up my camera and Bob turned on his ray machine. Well, I sure laughed. It didn't show any light at all; just a sort of pale, pinkish glow like a firefly under a red glass in the machine.

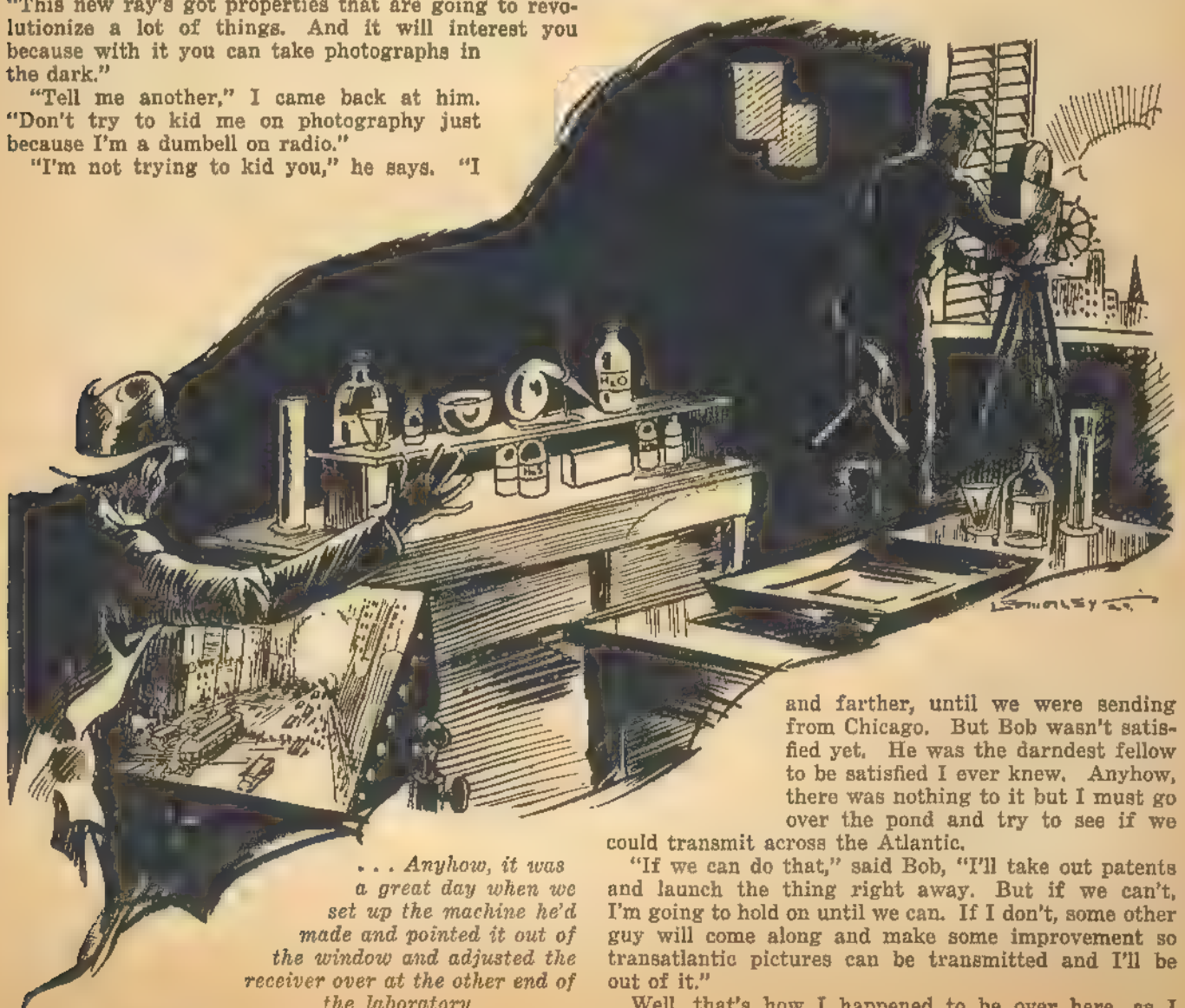
"He who laughs last laughs best," Bob reminded me. "Now Jimmy, shut off your lens and develop your plate and see what you see."

And believe it or not, Bob was right. I'd got as good a negative of the inside of the laboratory as though I'd given it a time exposure in broad daylight.

"You win," I told him. "But how did you know? You're no photographer."

He laughed. "I tried my machine last night after dark, and everything came through as if it had been light outside," he told me. "And so I knew the ray would in all probability have the same effect on your photographic plate."

Well, now that Bob had the ray, he was all for trying all sorts of tests to see how far he could send his pictures. Of course, he kept things secret, for he wanted to be sure, and he hadn't taken out patents. Well, it was away ahead of anything he had expected. I went out to Long Island and worked the transmitter and Bob got the picture O. K. Then I went farther and farther, until we were sending from Chicago. But Bob wasn't satisfied yet. He was the darndest fellow to be satisfied I ever knew. Anyhow, there was nothing to it but I must go over the pond and try to see if we could transmit across the Atlantic.



. . . Anyhow, it was a great day when we set up the machine he'd made and pointed it out of the window and adjusted the receiver over at the other end of the laboratory

"If we can do that," said Bob, "I'll take out patents and launch the thing right away. But if we can't, I'm going to hold on until we can. If I don't, some other guy will come along and make some improvement so transatlantic pictures can be transmitted and I'll be out of it."

Well, that's how I happened to be over here, as I

said when I started to write, and it seems to me it's taken an awful lot of time and paper to say it. Gee, if it takes all this space and all this writing just to tell how I happened to be over here in London, how the devil and all do these fellows get all they have to say into a book, I wonder.

Well, just as soon as I got here I began making tests and Bob cabled back they came through pretty fair, but not good enough, and he wrote saying he was working on an improvement he'd send over, and to stay on here until it arrived. So that's why I was here partly on pleasure, as I said, for while I was waiting for the dinkus he mentioned, I had nothing to do but to enjoy myself.

It was while I was doing London and the Thames and knocking about the Tower and putting in nights at Ciro's and Prince's and imagining I was a regular guy with plenty of dough, instead of a bum photographer with less than a grand in the world, that the mysterious blimps began to arrive.

Of course, they didn't mean much to me. In the first place, as I said, everything was kept quiet and I only knew what the papers were allowed to print, and in the second place, none of them came near London and so I didn't pay much attention to them. But pretty soon I noticed the sky was buzzing with airplanes, and everyone was talking about them, and I got wise to the fact they were patrolling to keep the "night-blooming-cereuses," as folks called them, from dropping in on us. Well, there was a pretty strict censoring on all mail going out and on all cables, and taking photographs in a lot of places was forbidden, and tourists and strangers were not allowed to travel through certain parts of the country, and I began to suspect there was a lot going on we didn't know about. But just the same London kept on the same as ever. The Strand and Piccadilly and Shaftsbury Avenue were just as crowded, and the buses rolled along same as ever, and all the theatres and night-clubs and restaurants were going full blast, so why should I worry?

WELL, in about ten days I got the dinkus Bob had made, and a long letter telling me how to use it. I studied it till I got the idea, and then set up the machine and gave it a test, and back came Bob's cable saying, "Wonderful. Results perfect. Try night shot."

Well, I decided the best night shot I could try, as a real good test, was a shot across London from my room, because I knew if I set up the thing on the street I'd have a crowd around and some polite-speaking bobby asking me what it was all about and perhaps I'd have to explain and give my friend's secret away.

Then while I was getting the machine ready, I heard an airplane buzzing away somewhere up in the sky, and I got a sudden idea that it would be great to get a shot that would show the bird. So when he seemed about where I was pointing the transmitter, I started it going. For about a minute everything ran along fine and I was just about to shut it off when the whole sky seemed to burst into flame, the buildings and trees in the park stood out black in the glare, and there was a terrific explosion somewhere up aloft. The next minute all was the same as before, only people were running and shouting in the streets.

Well, of course, I thought the plane had gone up and I wondered if Bob got the shot that must have been a corker. So I packed the things away and waited to hear what he'd say. But Bob didn't wait to cable. A "buttons" came up to tell me I was wanted on the phone, and who do you suppose was on the wire but Bob talking from New York.

"Say, for the love of Mike, what's happening over there?" he says. "I got the shot—Westminster tower, Big-Ben, trees, houses, everything okay, and up in the sky three big planes. But what the devil were those two black blimps that exploded? Say it quick because this call's costing me plenty, and the three minutes is about up."

"Ask me another," I called back. "You're forgetting it was all black here and I couldn't see the planes or the blimps. But I saw and heard the explosion. The papers'll be full of it tomorrow, and I'll cable you if you don't get it there before we do here. So long."

Well, I hadn't any more than hung up and got back to my room ready to go out for a pleasant hour or two, when someone knocked at my door and I called "Come in," thinking it one of the maids or maybe the valet or some of the staff.

Instead I saw a nice-looking chap in a tweed suit and carrying a stick, and with a close-clipped moustache.

"I beg your pardon, are you Mr. James Nash?" he asks.

"The same," says I. "Anything I can do for you?"

"Possibly a great deal," he says with a smile. "May I have a few moments' conversation with you?"

"Sure," I told him. "Sit down and be comfortable."

"If I am not mistaken, you are an American, Mr. Nash," he began.

"Surest thing you know," I told him.

"And a photographer by profession?" he continued.

I told him he was right again.

"And may I take the liberty of inquiring who it was who, a few moments before I arrived, was conversing with you by telephone from New York?"

"You can take the liberty of asking," says I, getting a bit peeved at a stranger butting in and asking personal questions. "But whether or not I tell you is my business."

He grinned the sort of grin that Englishmen know how to grin. "I cannot blame you for resenting my seemingly impertinent questions," he said. "I should have introduced myself." He handed me a card. "Hubert Landon" was the name, but I hardly saw that, because what he said just about put me on the mat for the count.

"I come from Scotland Yard," he said, as calm as you please, "and I trust you will see fit to reply to my questions, Mr. Nash."

"You bet I will," I told him. "Though why the devil Scotland Yard or the police are interested in me or my pal over in New York is beyond me. I haven't been doing anything as far as I know. Well, you asked who he was. He's Bob Johnson."

"Hm, and may I ask what he referred to when he spoke of your 'shot' and how he happened to know that airplanes were cruising over London and that an explosion took place? And to what did he refer when he mentioned 'two blimps'?"

Well, what could I do, I ask you, but tell him the whole works after first getting him to promise that he wouldn't give away Bob's invention.

For a time he didn't seem to believe it, but I showed him the machine and explained the way I'd taken photos at night with the ray, and showed him some I'd taken at night about London.

"Mr. Nash," he exclaimed, "your statement is astounding, most astounding and most extraordinary. But, if what you say is true—and personally I am convinced it is—the entire British nation will be in your debt. Would you mind accompanying me to Scotland Yard? I would like to have you repeat your statements to those who are my superiors."

Well, to cut a long story short, I went along and took the machine with me and Mr. Landon took me

Nash was seen to place some sort of a mechanism in his window. It resembled a cinema camera, but Landon, who was watching from a distance, observed that it emitted a faint pinkish glow. The next instant there was a terrific detonation from the sky

to see the Chief, and after I'd told him my story and had shown him the photos, he took me over to a big place in Whitehall, where I met Sir Kenyon McDonald —Gosh, I wonder if these British chappies never sleep, but work all night—and told him the same story all over again. Well, Sir Kenyon was mighty nice and so was the Chief and they asked if I'd mind taking another shot after calling Bob by phone and telling him I was going to try it, and I did, and he phoned back it was okay, and everyone was as excited as Englishmen can be.

But all the time I was worrying over Bob's secret getting out and I told Sir Kenyon about that. But he told me that I could rest easy on that score. He would answer personally for the secret of Bob's being safeguarded, he said. In fact, he promised that in view of the great service Bob and I had rendered England (though I didn't get what at the time) he would secure a Letters Patent for Bob free of all expense, if Bob would send on a description and drawings of his invention.

Well, that's about all I can tell. Only it seemed that by using the ray Bob had discovered they could photograph the sky at night and spot the blimps. But there was something else they didn't get until I asked them what had caused the two blimps to blow up.

"By Jove!" exclaimed Sir Kenyon, and "By Jove!" cried the Chief, and "By Jove!" said Mr. Landon, all in one breath.

Then—"Mr. Nash," says Sir Kenyon, "I have always been a great admirer of Yankee ingenuity and brains, but I have never hitherto had such a convincing demonstration as at the present moment. The explosion! By Jove! Of course—it was the ray! Mr. Nash, you and your associate, Mr. Johnson have, I believe, saved England."

Major Leighton Resumes

I WAS still working day, and most of the night, on the mechanisms of the dirigibles, without having gotten much nearer a solution of their puzzles than ever, when—about eleven o'clock one night—I was ordered to report in London with all possible speed.

Within the hour I was in Whitehall, and entering the offices of Sir Kenyon McDonald—to whom I had been instructed to report—I found him in earnest conversation with General Sir Edward Brassington and a young red-headed, freckle-faced chappie who, I felt sure, was an American.

"Ah! Here you are!" exclaimed General Brassington, scarcely acknowledging my salute, and leaping to his feet. "Lost no time en route, I see. Good! Major Leighton, let me introduce Mr. Nash of New York, a young man to whom the British nation owes a debt it never can repay, and who—if I am not vastly mistaken—has saved England."

I stared at the fellow, Nash, in amazement. What, I wondered, was Sir Edward talking about? What was all this about this youngster saving England, et cetera? He was a jolly-looking chappie, but hardly more than a boy, and was blushing furiously as he shook hands and the general spoke. And I must say he did not appear in the least like a saviour of the country, a hero or a master-mind, you know. Still I knew there must be something back of it all, for General Brassington and Sir Kenyon would not be here at this ungodly hour and would not have summoned me from Aldershot and would not be talking with young Nash, unless something important was in the air.

'Now, Major," continued Sir Edward, "take a cigar and a chair and listen to the most amazing thing that's happened yet, eh, Sir Kenyon?"

Sir Kenyon nodded and the general cleared his throat "As you know," he began, "we've been keeping a strict censorship on all outgoing and incoming mails, cables, radio and telephone messages. In doing so, we came upon several communications addressed to Mr. Nash which, to us, appeared a bit suspicious and puzzling. Among them a cable mentioning 'shots' and advising Nash to 'try a night shot.' Quite naturally we kept a pretty sharp eye on our young friend here, Detective Sergeant Landon being assigned to his case. No use in going into irrelevant details, but suffice to say that this evening—no, last evening—Nash was seen to place some sort of a mechanism in his window. It resembled a cinema camera, but Landon, who was watching from a distance, observed that it emitted a faint pinkish glow. The next instant there was a terrific detonation from the sky. As Landon had noted that one of our scouts was patrolling overhead, his first thought was that the airplane had blown up, but to his amazement the hum of the motor continued. Feeling certain that Nash and his machine had some connection with the explosion, Landon hurried to the nearest call-station to report, and then dashed off to Nash's place—a residential hotel in Earl's Court. He was informed that Nash had been called by telephone from New York, and at once cut-in on the wire and overheard a portion of the conversation that astounded him. The voice from America informed Nash that it had got the shot —Westminster Tower, Big Ben, trees, houses, et cetera, and up in the sky three big planes. Then it asked 'What the devil were those two black blimps that exploded?'

"As a result, Sergeant Landon interviewed Mr. Nash at once and learned that the mechanism was a newly-invented apparatus for transmitting radio television, that Nash had been testing it out, and that, owing to a newly discovered light or ray, the device could transmit night scenes as clearly as though they were in daylight. In proof of this he exhibited several photographs that he had taken—so he declared—at night by means of the ray. It was all most extraordinary and amazing, but Landon was convinced of the truth of the astonishing story, for he had heard the voice in New York stating that the scene had been received and mentioning three planes and the two explosions, which could not, by any possibility, have been known to him, if he had not received the transmitted view as Nash claimed. At all events, Nash brought the apparatus to Sir Kenyon here, and had explained the entire device to us both, and we are both fully convinced that not only does this seemingly magical ray have the power of rendering visible these objects that otherwise are invisible in the darkness, but that it also possesses some inexplicable, but nevertheless actual power to destroy the damnable enemy's airships at a distance. You can see, Major Leighton, what a tremendously important thing it is. Not only can we now detect all the ships arriving during the night, determine where they are about to land and thus be in readiness to give them a warm reception, but we can do more—we can annihilate them—destroy them utterly in the air. Do you not agree with me that the British nation owes Mr. Nash an inestimable debt of gratitude?"

"I can understand that the invention will prove of real value in revealing the whereabouts of the airships," I replied. "But I do not have any faith in the device exploding the ships. You see, Sir Edward, they are filled with helium gas which, as everyone knows, is non-explosive."

"By Jove!" he exclaimed. "By Jove! But in that case, Major, how do you account for the explosion over London last night?"

"Probably merely a coincidence," I replied. "I don't

believe this little device"—I indicated the apparatus standing near—"had anything to do with it. I cannot believe a tiny light—no brighter than a radio tube—could possibly have any effect upon an object thousands of feet distant."

General Brassington smiled and stroked his moustache, and his eyes twinkled with amusement. "H-mm, but my *dear* Major Leighton, if helium gas is non-explosive, how could the blasted things explode even if they were not affected by Mr. Nash's device, but went off merely by coincidence?"

I flushed. The general had me in a bit of a corner, so to say. "Perhaps," I suggested, "those particular ships were *not* filled with helium gas. Possibly the makers are running short of helium and are resorting to hydrogen. And with such a mass of electrical devices liable to produce a spark or a short circuit, a hydrogen-filled ship would be exceedingly likely to go off."

"I cannot say that I agree with you," he stated. "But at all events we are simply wasting valuable time by discussing theories and suppositions. What I desire is a positive test—that is why I sent for you, Major. I want you to take Mr. Nash and his device to the vicinity of the nearest of the recently arrived ships—the one that came down two days ago near Chiselhurst is the most accessible I believe, and determine once and for all if it *can* be exploded by his ray. Have him set up the device at a safe distance—say a thousand yards—and start it going. If no result follows, we will know it had no connection with the explosion last night; but if, on the other hand—off with you, Major, for I shall remain here until you return and I'm getting damnably sleepy."

I must confess that I felt a bit excited as we stopped the car about eight hundred yards from the dirigible, whose dim bulk could be seen against the sky looming above the alder thicket in which it had landed. It was an excellent subject for our tests, for there were no houses in the vicinity and it was fully a half-mile from the main road with no chances of any human beings being in the vicinity. For that matter, no one ever went near one of the things—everyone gave them a wide berth, for the dread of disease and their gruesome character kept everyone off.

YOUNG Nash seemed perfectly cocksure of himself and chattered on in his extraordinary slangy way as he set up the device upon which so much depended. I really liked the lad, he was so effervescent and friendly, and throughout our trip from town, he had kept me jolly well laughing all the time with his quaint observations and original comments on his experiences in England. Presently the apparatus was adjusted and ready. "Here she goes!" Nash exclaimed. "Gee, I wonder if Bob happens to be looking into the receiver just now. Gosh won't he get a kick out of it if he is? Hold your ears, Major, because there's going to be an all-fired big bang in about ten seconds. Are you ready? One, two, three—go!"

There was a faint pinkish glow in the front of the apparatus, a low hum like a badly tuned-in radio and then—a volcano seemed to burst into eruption, the entire earth seemed to shake, the whole country was lit up with a vivid glare, and I was deafened by the terrific detonation as the airship exploded with the report of a sixteen-inch gun. Then silence, darkness. Awed and astounded, I remained for a moment gazing transfixed with amazement at the spot where, a moment before, the ovoid form of the ship had loomed against the sky. Not a trace of it remained; the alder thicket had vanished. Nash's voice broke the spell.

"Some bust-up, I'll tell the cock-eyed world," he remarked. "Well, Major, what do you know about the little old ray now?"

I grasped his hand, patted him on the back, fairly waltzed him about in the delirium of my delight. Helium or not, whatever was in that huge metal container had been exploded by the invisible force emanating from the tiny pink glow in the machine. England was saved! I could visualize hundreds, thousands of the devices, each sending out its invisible, terrible rays, forming a barrage over the entire country, a screen of rays that would instantly destroy any of the airships that might approach.

I drove back to London at breakneck speed and burst into the room where General Brassington and Sir Kenyon were awaiting us.

Very evidently my face told the story, for the general grinned and rose.

"Aha!" he exclaimed. "So helium gas *is* explosive after all, Major! I can see the test was most successful. Now if you'll excuse me I'm off to get an hour or two of sleep. I'm not as young as I was once, and I find late hours—no—" with a laugh—"early hours—tell on me. Good night—er, rather, good morning, Sir Kenyon and Major Leighton, and—er—Mr. Nash."

Tired as I was and late—or early—as was the hour, I slept little, for my mind was filled with what I had witnessed and was busy planning the campaign to follow. Of course, the most essential and all-important matter was to manufacture tens of thousands of the ray-producing devices. But here we were, literally up a tree, as the Americans say. Nash himself hadn't the most remote idea of how the ray was produced or the chemicals used in its production. It was in fact, a secret known only to his friend, Johnson, and Johnson was in New York. Ponderous machinery can, however, move with rapidity in an emergency, and before I had left Sir Kenyon, long messages in code had been sent to the British Ambassador in Washington; all ordinary communications had been ordered off in order to permit Nash to carry on an hour's telephone conversation with his partner in New York, and arrangements had been completed for Johnson to be rushed to England by our fastest cruiser in American waters.

It would be at least four days before he could arrive, but the time would not be entirely wasted by any means. Although we did not know the secrets of the ray, for we dared not permit Johnson to divulge them over the telephone or by any other form of message that might be intercepted, yet the mechanical portions of the device were obvious, and orders had been issued for every available factory to commence immediately the production of such parts of the apparatus as could be duplicated, and to work night and day to full capacity.

By the time Johnson arrived we had a stupendous supply of the devices completed and all ready and waiting for the installation of the ray-producing materials. Fortunately there was an abundant supply of the necessary chemicals and minerals on hand, and two days after Johnson reached England the first of the ray machines were being set up. These were located in Devon and Sussex, for by checking up on matters we had ascertained that the majority of attacks had been made in these two counties. Here I might mention the rather curious fact, though easily explainable, that not a single one of the ships had ever landed in or near a large town or a city. Of course, it was evident that one of the damnable things landing in a city would instantly be discovered and that its occupants would have practically no chance of living long enough to do any material damage. But it served to prove most conclusively that the dirigibles were *not* dropped, hit or miss, on England, but were guided or controlled

from a distance with such nicety and precision that out of the hundreds that had landed, no error had been made; no two had dropped in or even near the same spot, and, as I said, none had descended on a town or for that matter in a densely populated area.

In one way this made the installation of our destructive ray machine easier, but on the other hand, it made the work more difficult, a seemingly paradoxical statement to be sure, but plain enough when one comes to think of it. As we could feel reasonably certain that none of the things would descend near the large cities or in their suburbs, we could leave such areas unprotected. In fact, as General Brassington pointed out, to bring down or to explode such of the ships as might be passing over a city *en route* elsewhere would be highly dangerous to the city and its inhabitants. On the other hand, the fact that no two ever landed in the same spot made it impossible for us to foresee where the next ones would appear.

Of course, this problem was a problem only during those few days when our supply of ray machines was limited. But within a very short time we had so many thousands of the devices that a complete screen of invisible rays was spread over the entire southern half of England, and nightly the whole country was illuminated by the glare of exploding dirigibles in the sky and the detonations sounded like a barrage of heavy gunfire. And the fact that the things continued blindly to run into our destructive ray-screen proved that even if the fiends who were sending them *could* plot out their prospective landing places with such nicety, they had no means of ascertaining whether or not the ships reached their destinations. So successful and complete was the protection afforded by the Johnson ray, that we were enabled to trust to the devices to protect southern England, and turned all attentions and concentrated all efforts upon the northern, eastern and western shores, upon Wales and Ireland and finally upon Scotland.

BUT despite the tremendous success of the rays and their inestimable value as a protection to our country and our people, still it did not get at the root of the matter, the question of whence came the damnable black dirigibles with their frightful cargoes, the solution of the mystery of the identity of the enemy who had resorted to the diabolical plan of destroying a nation. I mentioned this to Sir Kenyon one day and asserted that, in my opinion, more energetic steps should be taken to determine who was our invisible and unknown enemy.

For a time he remained silent, deep in thought, pondering on the matter, his bushy brows drawn together, his fingers tapping on the desk before him.

Finally he glanced up, smiled and lit a cigar. "Possibly, Major Leighton, you are not fully cognizant of all that transpires in my department," he observed. "In fact," he continued, "I should consider I had completely failed in my duty and in the trust reposed in me if you, or anyone else, knew all or even a small portion of what took place in the department under my supervision. But I am now in a position to assure you that we are very near the point of descending upon the arch-enemy—or better, the arch-fiend—who has brought this dire calamity upon England, but which, thanks to God and our loyal people and—yes, I must not forget them—those two remarkable young Americans, Nash and Johnson, has not succeeded to the extent our enemy expected, and which, I trust, will soon be nullified completely.

"Try and think, Major, what enemy it *could* be. What enemy have we who could have put this horrible idea into practice? What enemy has reason to wish to reduce our man-power, to so disrupt our organization at home that we could not defend our possessions, much less dream of sending expeditionary forces elsewhere, could not even fulfill international pledges as allies nor give heed to matters transpiring overseas? What country possesses helium gas? What enemy could secure thousands, tens of thousands of negroes for his hellish purpose? Use a process of elimination and see if you cannot answer some of those questions, Major Leighton."

I racked my brains. "Obviously it is a tropical country whence the ships come," I replied. "Evidently some spot inhabited by a tremendous negroid population. Only two localities on earth, as far as known, possess helium gas in any quantities—the United States and—my God, Sir Kenyon—Andaya! But—but that's impossible! Andaya is a tiny state—it's hidden in the wilds of Africa and it possesses no great cities, no facilities for making such complicated machines in such countless numbers. To do that would require a great and powerful country, a great government—one of *the* Powers. And besides, Andaya is not an enemy—not at war with England."

Sir Kenyon smiled. "In the game of policies and politics there are endless wheels within wheels," he informed me. "Andaya, to be sure, is a tiny principality, a buffer state, as we might say, with limited resources and, as you say, tucked away in the heart of Africa. But you forget—or perhaps I should say, you don't know, that back of Andaya is one of the greatest, most powerful of the world's Powers; that that Power is and always has been an enemy of our country, and that it would gain immeasurably by our destruction—even by reducing our status to a point where we would no longer be of value as an ally to another Power, that hitherto has been the wall that has protected us from becoming involved in open warfare with the first-mentioned Power. Can't you see that if, by machinations and promises, this Power could induce Andaya to fall in with its diabolical plan to injure, to destroy us, that its way would be cleared for a declaration of hostilities? And can you not see that—in case suspicion were directed at the great Power, we could not possibly prove that it had any hand in the affair? Its statesmen could and would deny all knowledge of the events. The entire blame would be thrown upon Andaya, and even if we wiped Andaya completely off the map, no one would greatly object. Besides, Andaya has its own personal grudge against us. Do you not remember that, five years ago, we used drastic measures to suppress the beastly slave trade that was the most lucrative source of income for the country? The greatest factor in that slave trade, the man who was the head of it all, who practically controlled it and who had amassed an incredible fortune from it, is the nominal ruler of Andaya and—what is more significant, he is a native of the country I hinted at."

"My God!" I exclaimed. "Then it *must* be Andaya! But why haven't you crushed the damnable place, taken possession of it and put a stop to these accursed attacks long ago?"

Sir Kenyon smiled condescendingly. "We had to be positive of our deductions and suspicions," he explained. "And to send properly equipped and competent spies to Andaya, and to receive their reports, requires time. You, as an officer of our Air Force will undoubtedly think: why not send planes and see what is going on? But you forget that at the first sign of a plane the Andayans would have become suspicious, and it is reasonable to assume that if they are capable of producing radio-propelled and directed aircraft that travel faster than our fastest planes, they undoubtedly possess air vessels that could overtake and destroy any planes we possess. Moreover, our government desired to get at the bottom of it, to secure evidence of the master mind

of the underhanded attacks, and to be in a position to take drastic measures that for all time would prevent the suspected Power from carrying out its dreams of dominating Europe and—eventually—the world. But the end is very near. Within the next twenty-four hours, I expect to hear that Andaya is in the hands of the British troops and that the Power that ever since the World War has been a menace to the peace of the world, will be trembling and cringing in the face of the demands of England and the United States."

* * * *

By Gen. Sir Edward Brassington, Bart.

I HAVE perused with a great deal of interest the various accounts of the sequence of events that transpired during those black weeks when England appeared to be at the mercy of an unknown, inhuman and dastardly foe intent upon destroying our population by the most diabolical means ever devised by man. In the main, the statements by Doctor Grayson, by Major Leighton, by Inspector Maidstone and the others are so accurate, so concise and yet so comprehensive that I can discover nothing omitted that is of any real interest or consequence. But in reading over the extraordinary statement of James—no, "Jimmy"—Nash, I have found more amusement than I have ever obtained from a perusal of my beloved *Punch*. Never, 'pon my word, have I met such an extraordinary young man. And the statement he has written is so typical of himself that I would not, for worlds, alter a single word or line. Really, he has been a revelation. In the first instance, I had always pictured the American of his type—that is the—er, well, I might say, flippant young type—as only too willing to toot his own tooter, to aggrandize himself, so to speak. But Jimmy, by Jove, is the most modest and retiring chap I ever came across. Why, the young scalawag doesn't even mention that he was knighted, that he and his partner, as he called him—Johnson, no, Sir Robert Johnson, were given such an ovation as England seldom bestows upon any man, that they were the idols of the Empire, that they were received by His Majesty and showered with every possible honor. And, really, I chuckle to myself even now, as I think of it, when, in order to express in some manner the obligation that England felt towards him, I, as his most intimate acquaintance and mentor, was requested to inquire what position he would care to accept, what do you suppose the extraordinary chap said? He wanted the appointment as Court Photographer, by Jove! And he got it.

Of course it is unnecessary to state that Johnson's process of television is now in universal use and has brought both its inventor and Sir James Nash immense fortunes. Neither is it essential that I should recall the events that followed closely upon the successful establishment of the Johnson ray screen over afflicted England. But before closing I feel that I must pay some tribute to Doctor Grayson, now Sir Gregory Grayson, Bart., to whose knowledge of tropical diseases and unremitting, self-sacrificing labors and tireless efforts, half of England's population owes its life and health today. Thanks to the antitoxin he produced, and to others he discovered and distributed, very few persons were seriously affected with the terrible maladies which those Andayans had thought to spread throughout England.

I do not think—I have not the exact figures available—that two hundred persons altogether became infected with any of the diseases to such an extent that lasting ill effects followed; and I know positively that not fifty cases of insanity or death resulted.

Taken altogether, the casualties resulting from the attacks were far under what might have been expected. To be sure the total number of deaths amounted to more than fifty thousand, but despite the appalling figure, economically—that is in proportion to the entire population—the loss of human lives was insignificant.

But, most gratifying of all, neither England nor any other country need ever fear a repetition of the disaster that threatened us. Andaya is now a British dependency, the Power that—as was conclusively proved was behind the conspiracy—is no longer in a position to interfere with any other nation, but is, to all intents and purposes, under the control of the United States and Great Britain, and even if some other fiend should attempt to repeat the Andayans' example, Johnson's rays would render such efforts utterly impotent.

THE END

Your Viewpoint

An Exhaustive Criticism From a Mathematician

Editor, AMAZING STORIES QUARTERLY:

For several years I have been an intermittent reader of this magazine and also of the associated monthly. That many of the stories have pleased me is attested by the fact that I have continued to read the publication. However, many of the others have irked me considerably, but to date I have refrained from sending the editors my reactions, laudatory or otherwise—no story having provided the necessary stimulus to cause a rather busy man to pause to hurl either brickbats or roses. But at last the impetus has been provided in Hamilton's story, "The Other Side of the Moon," which appeared in the fall number of the Quarterly, and I am sorry to say that it has proved to be an irritant. Although I shall not go into an exhaustive exposition of my objections to this story, as this would occupy more space than the story itself, I shall be rather thorough in my criticism, since this is my first, and probably last appearance in these columns.

First, let me outline my idea of good science fiction: Briefly, it should be highly imaginative and full of the inventive, or fiction, element, but it should never conflict with well established results of empirical science unless the reasons for the contradictions be logically and clearly explained. Let those who, like the armchair philosophers, object that nothing is impossible and that all our science is open to doubt, consider that much of our knowledge must be fairly accurate under the conditions prevailing, otherwise we would not get the practical results which we have obtained from our applied science. Also, there must be a few axiomatic, or irreducible, laws in the universe, though probably much fewer and simpler, when fully understood, than some of our clumsy attempts at formulating them. Wherever a law exists there must exist an impossibility, viz., results contrary to the law under the exact conditions necessary to the validity of the law. (As an example of a simple impossibility consider whether or not a man may be both an orthodox Jew and a true Mohammedan simultaneously!) The infinitesimal body of man-made science certainly is not unquestionably correct, but our only foundations upon which to build a better science are those results which our senses record as true after many careful experiments, and these results should not be undermined in the minds of lay and youthful readers of science fiction by careless writers who do not show ample reasons, either logical or empirical, for their disagreement with accepted science. Of course the readers of science fiction are interested primarily in being entertained by strikingly different and imaginative stories, but these same readers are undoubtedly of a scientific turn of mind, and one of the keystones of scientific method is a continual attitude of open-mindedness toward all new theories and data but never rejection of formerly accepted data until it is disproved, or improved, and better data substituted, by careful experimentation. It may be more difficult, but certainly not impossible, to write startling and imaginative stories without contradicting any of the commonly accepted positive results of present-day science. I am now at work on a story which, I hope, will exemplify this fact, and which I shall submit to the editors of this magazine. (We will be glad to see it.—ED.)

Now to my criticism of Mr. Hamilton's story which I shall state as briefly as I can and still make the errors evident, although the temptation to elaborate on them is great. Also, I have omitted mention of a number of trivial flaws in the logic and the science of the story, as well as others not so trivial which would require lengthy and technical explanation to make the error apparent. In all I have discovered no less than two dozen different errors in the work.

In this tale cylindrical projectiles are fired at speeds near that of light to and from deep and relatively narrow shafts fixed in the earth and moon, which, according to the author, are periodically exactly in line. Suppose that at any instant of time fixed shafts, EP and MN, are suddenly

(*Continued on page* 143)

Tani of Ekkis—*By* Aladra Septama

(*Continued from page* 123)

Oomir, our Commander, as I have not wished to trouble anyone without necessity. Only to Elnis have I spoken. Elnis is my co-observer at the glasses. He also has seen, but we have kept our own counsel. Once when we were just about half way from Ekkis I saw what I thought at a glance was a far away light cloud; but after a while, when my eyes were a star, I saw that this thing had come *between* and shut out the sight of the star. To this puzzle I could find no answer, nor more could Elnis, and as it was seen no more at that time, we put the occurrence out of our minds. Whatever it was, it must have been far away. But many years afterward we both saw it again, this time quite close at hand. There were vast faintly luminous shapes —or aggregations of many shapes, we could not tell which, but I think the latter. There seemed to be many of them, and we saw them on different sides of our ship. They seemed to come from one side, to accompany our course a while, and then to depart on the other side. We saw them no more until just before and just after we boarded the strange dead ship. But they came no nearer than the second time, and we could learn nothing more about them. So, while Elnis and I conjectured much about them from time to time, we still held our counsel, and saw no more of them until we were within a few trillion miles of Esteris, since which time we have been seeing them frequently, although they have never come near enough to the ship to be noticed by anyone else. If we reach Esteris in safety, we have decided to file this away with the records of the ship, so that it may give its evidence, perhaps after we have passed away, in case it is ever needed.

"(Later.) We have found out what the strange things are, but do not wish to put a name to them. They are now always seen either passing in the direction of Esteris, or else coming from that direction. We are only hoping Esteris is not inhabited by them, for if it is, there is no hope there for us. We are both putting our names to this for verification in case it ever has to come to the light."

* * * *

WHATEVER the subsequent happenings, with which the translator is not minded to burden the reader at length, the stupendous journey reached to its successful ending. The ship came to the ground in the province of Kolata, in the South Polar Regions of Esteris, known by some peoples of some planets as Jupiter. The refugees from distant Ekkis were hospitably received, and most of them set foot for the first time in their lives upon a planet. The young Ellit and Nenni learned at first hand how it could be that people could go without fear where there was no ship about them to keep them from harm, and saw with their own proper eyes how the floors of the planets were put together of the chemical and mechanical mixture called "soil."

Tani of Ekkis abundantly fulfilled her promise to even live to walk there with them, and very frankly and unashamed, she went upon her knees to kiss the ground.

The wisdom of Ekkis would live on gloriously.

From the blood of those who came out of the ship Oomir of Ekkis, great cities have arisen, the which (because though mingling somewhat with the Jovians, the refugees kept their blood largely to themselves), came to have the name of Ekkis appended, as a sort of family name to the surnames they were endowed with. Their greatest and capital city was surnamed Ellit and came to be known by the name of the City Ellit of Ekkis.

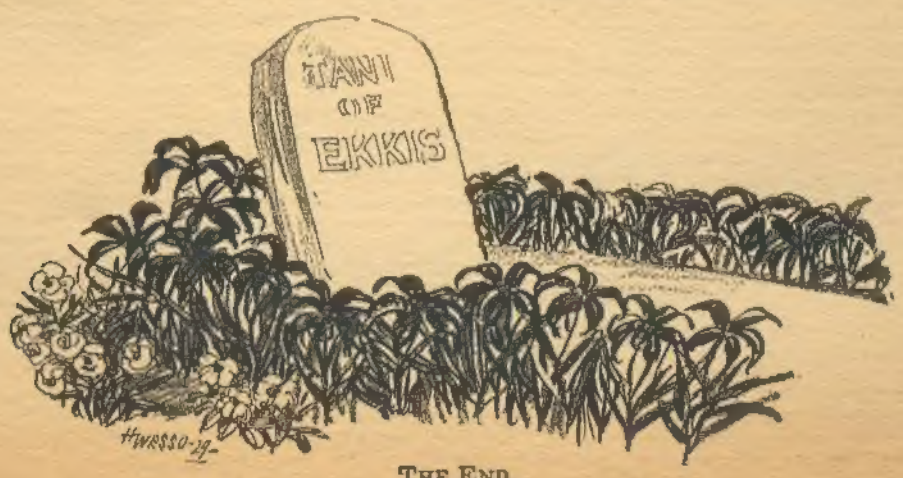
Great was the City Ellit of Ekkis. Great, and beautiful, as well, having gardens where the flowers of Ekkis rejoiced in the plague-free air. And in the center was a monument, reared by his people as promised by Tani, in memory of the one whose name the city had taken, bearing, among some other words, "He died for us."

At the close of one of the brief days of Esteris, in a house of the City Ellit of Ekkis, a man and a woman looked at each other, as oftentimes before and since, with a common and understanding thought. They set at once aside whatever they had been doing, and went out together through the great city to a place where was a large and beautiful garden. They entered—for it was open for all to go in who would, and walked a little soberly down one of the ways bordered with trees and flowers, to a small enclosed place a little aside from the rest, bearing over its portal (for it was a sacred place and might not be entered by any at will), in the language of Ekkis the inscription, "GARDEN OF ELLIT."

Just outside the portal was a beautiful memorial of white marble, said to have been erected by Tani of Ekkis, bearing the legend, "To the Unknown Lovers."

The keeper unbarred the gate when he had seen and saluted the two seeking admittance, so that they entered —reverently.

And whatever there was within, they went first to place themselves lovingly and reverently before a stone a little elevated in the middle of the garden. And there in the Garden of Ellit, hard by the City Ellit of Ekkis, they knew that they were kneeling upon the soil of their own Ekkis, as they read through blessing tears the plain and simple legend—



THE END

Editorials from Our Readers

THIS being your publication, you, the reader, have certain ideas, not only about this publication, but about scientifiction as well. The editors believe that their mission is complete when they select and edit stories that go into the making of this magazine. On the other hand, they feel that you, the reader, have a more detached view of the magazine itself, and that very often your ideas as to the magazine, and as to scientifiction in general, are not only valuable, but are original and instructive as well. For that reason it has been decided to print the best letter—about 500 words—which can be used as an editorial, on the editorial page and to award a prize of $50.00 for any letter so printed.

The letters which do not win the Quarterly prize, but which still have merit, will be printed in the "Editorials from Our Readers" Department, newly created in this magazine.

Laudatory letters containing flattering remarks about the stories themselves, or of the magazine, are not acceptable for the editorial page. We want inspiring or educational letters, embodying material which can be used as an editorial along scientifiction themes.

Remember, it is the idea that counts. A great literary effort is not necessary, as the editors reserve the right to edit all letters received in order to make them more presentable for publication.

Remember, too, that anyone can enter this contest, and everyone has an equal chance to get on the editorial page of AMAZING STORIES QUARTERLY hereafter.

This contest will continue until further notice. Contest for each issue closes the 20th of the second month preceding date of issue—viz.—contest closing date for the next issue is the 20th of February.

The Latent Value of Scientifiction

STORED away in the mind of man is a vast untapped fund of latent knowledge awaiting, as it were, its release through some magic impetus, to spur it on and cause it to burst into bloom and bear the fruit of advanced knowledge and science. In scientifiction, there lies the potent germ stimulus to awaken and activate these dormant thoughts.

The greatest deeds, the greatest accomplishments, the greatest advancement and inventions of man are all the products of some small thing that has caused some mind to concentrate upon the accomplishment of some definite object. Some little abstruse saying or action that has fanned his dream thoughts or those of another into practical actuality, making for the realization of another conquest added to the ever growing accomplishments of the science of our civilization.

Scientifiction in its ramifications of the dream world, with the often bizarre thoughts of the author, forced into a form of reasonableness, through the juggling of scientific facts combined with plausible conjecture, not only makes reading that is teeming with interest, but reading that is froth with ideas that require thought to assimilate.

Thoughts fostered by the weird imaginings of the scientifiction author's fertile imagination, run rampant in the readers' mind; thoughts that the natural combativeness of the human brain will not accept, without first pausing to assimilate the actual facts presented in support of these fantasies: thus the reader acquires knowledge in a form well within his grasp and understanding; knowledge, that he would never, possibly, have been in a position to acquire otherwise; a knowledge and understanding, so absorbing often fosters the desire for a deeper and more profound knowledge, which in turn leads to an accomplishment far beyond his dreams of attainment. Yet all was acquired in the form of amusement, a fascinating, soul-satisfying entertainment.

Scientifiction, to those with a deeper knowledge of the sciences, plays even a keener rôle, for it relaxes one's thoughts and leads them into channels which the scientific often labels as preposterous. But the mind, following the trend of the absorbing impossibilities, as it were, subconsciously is building a case about the seeming impossibility, sometimes rending, sometimes defending the authors' supporting facts and theories, but never neutral, weaving a story within a story, formulating a theory, that, even long after the absorbing pastime of the reading of the fantastic imaginings of the impossible, as they lead us possibly through worlds created for the occasion by the author is over, refuses to be brushed aside lightly and is commonly the remote cause that presses the hidden spring that releases the parent idea, the germ of a new invention of untold benefit to man.

Scientifiction has done much for pure science, as it has dispelled, what was possibly the greatest throttle to advancement in the past, *the fear of ridicule*. Many a thought and many an idea pregnant with possibilities has gone unexpressed for fear of the scorn it might bring to the brain that gave it birth. Yet, in those thoughts, there often lay the germ of a great accomplishment. The mere utterance of the thought, with the attending substantiating facts gathered in the attempt to make them appear plausible in scientifiction, together with the greater understanding engendered through coming into contact with other thoughts paralleling them, or possibly only another apparent absurdity, might have produced results astounding in their development.

Today, through the medium of scientifiction, many ideas are expressed, that the author, often a man high in his profession, believes, but cannot prove. If it were not for this medium, these thoughts would otherwise go unexpressed for fear of ridicule. Yet a frank discussion of the facts that led up to the idea, supported by facts and assumptions, told in the form of interesting fiction, possibly with an absurd background drawn from the imagination to lend color to the idea and plausibility to the details, might furnish the needed inspiration for someone else to prove scientifiction has found and fills an important place in the literature of man. It has come to stay and with its growth and development, it is destined to play an ever increasing part in the development of the minds of the future and the creations to which it has given birth.

Numa C. Hero,
Gretna, Louisiana

Fourth Dimensional Thinking

EINSTEIN and other great scientists have definitely taught us that everything is relative.

It is highly important to the advancement of the human race that we apply the theory of relativity to our thinking processes.

In other words, we must keep our minds open—broad—big—receptive—ready to attempt at least, comprehension.

The cohorts of superstition, sciolism and intolerance, with their now transparent cloak of orthodox theology, are making their last futile stand against the glorious, magnificent achievements and knowledge of science. (I use term science in a practical, mechanical, useful, corporeal sense).

Men and women of erudition are not satisfied with *hocus pocus*—barbaric, legendary, narrow creeds and beliefs.

No, rather they earnestly believe in the great Engineer, because of the incredible things we have accomplished. They believe in a Plan so great that they do not attempt detailed comprehension and application. In their cognition they realize frankly that we are but blindly groping at the bottom of a vast sea of undiscovered wonders and numerous possibilities.

This writing is a petition to you to think big—open, and with extreme tolerance.

Scientifiction is doing a wonderful work. Its now seemingly improbable and grotesque ideas may be practical in the years to come. Remember the words of a great philosopher, gifted with prescience: "The folly of today is the commonplace of tomorrow."

No human being ever accomplished the slightest deed without first thinking.

So, let us study—read—think—mighty and superlative thoughts, with a mind to human welfare and progress.

With the undisputable evidence of science's great deeds before us, what man can say, "It is impossible; that's just a fool's dream"? That phrase has always been the keen weapon of the intolerant and bigoted fundamentalist, who fatuously thinks he can disturb the plan of the Great Mechanic with charlatan ritual.

Who dares to say sincerely that man will not one day retard or speed the rotations of the earth at will?

That he will not control the weather?

That he will not travel at velocities now incomprehensible to us?

That, through ectogenesis, he will not create a race of perfect human beings?

That he will not discover that the universe we know is but an infinitesimal part of a vaster super-system?

That he will not number, name and measure planets five hundred thousand energy years (radio impulse speed) in distance away, even though still then but groping in the dark?

That he will not make regular interstellar visits to then relatively near-by planets?

That he will not control and use the marvelous energy of the atom?

That he will not gather and use solarium energy and harness to his will and use gravitation?

That he will not banish disease through scientific, medicinal mediums (not through nescient, dogmatic creeds, based on apocryphal superstition and hearsay) and live a beautiful, happy, crimeless, moneyless life of pleasure, service, thinking and accomplishment.

Scientifiction is teaching you to think with an eye to possibilities. It is big—tremendous.

So, let us shake off our mental shackles and keep our thinking in four dimensions—receptive—profound—tolerant and Atlantean, with our goal the ultimate achievement of humanity.

Let scientifiction be your Time Machine and pleasantly spur your brain with prolific contemplation of the wonders and marvels to come.

"There is no darkness but ignorance."
—*Twelfth Night.*

Think—Think—Think.

Joe W. Skidmore,
736 Loma Vista Drive,
Long Beach, California

formed on the earth and moon respectively so that the central end-points, E, P, M and N, are all in the same straight line at that instant. Due to certain relatively incommensurable motions of the earth and moon, these four points, and further, any three of them, will never again in all eternity lie in the same straight line. This can no more happen than can the numbers π or $\sqrt{3}$ be exactly expressed as decimal fractions. In the case of shafts of relatively small diameter (400 ft. in story) the center line of shaft EP would not only never again be in line with M, the center point of the mouth of shaft MN, but an immense period of time would elapse from the first instant of collineation of the center lines of the shafts before it would again be in line with any point on or within the circumference of the mouth of shaft MN. In spite of these facts the enterprising author has these shafts coming in line day after day and actually states (p. 548) that the period is twenty-four hours, although almost any layman knows that the periods of the lunar and solar days are not identical.

These projectiles accelerate from rest to nearly the speed of light and decelerate to rest again, all in two or three seconds with a load of human freight. Assuming for the moment that the projectiles could survive, human bodies would be crushed to nothingness by the relative pressure of their own inertia under such terrific acceleration. Springs or cushions would be of no avail in cases of such tremendous accelerative pressure, as they merely serve to distribute the shock of a small acceleration or deceleration (negative acceleration) over a longer period of time and thus make the effective instantaneous acceleration applied to the cushioned body less. It is difficult to adequately cushion road shocks in modern high-speed racing cars over an apparently smooth track, but it is not a difficult calculation to show that the reactive force of the road shocks is infinitesimal compared to that produced on a body weighing one hundred and sixty pounds at the earth's surface by accelerating about 186,000 miles in two or three seconds, not to mention decelerating by this amount in the same time interval. Let Mr. Hamilton cushion himself ever so carefully and ride in a car driven against a brick wall at say seventy-five miles per hour and then decide whether or not he would care to repeat the performance at nine million times that speed.

Further, the most prominent modern physicists agree that as a consequence of the Lorenz-FitzGerald contraction (a moving body is shortened in the direction of its motion) and Einstein's postulate that the velocity of light is the ultimate speed obtainable by matter, a body traveling at the speed of light would have a dimension of zero parallel to the path of motion, which means that it would be disintegrated and reduced to radiant energy. Before this could happen, however, a projectile leaving the earth at the relative snail's pace of a meteor (not to mention the speed reached one thousand feet from starting point in order to attain the velocity of light by a uniform acceleration before reaching the moon—meteors travel from 10 to 40 miles per second) would be heated to incandescence and burned by the friction of earth's atmosphere.

It is several times stated in the story that following the puncturing of artificial air-tight coverings over the moon the air within "rushed out instantly." How, pray tell, does Mr. Hamilton think the earth's air is retained at a surface pressure of nearly fifteen pounds per square inch without an artificial retainer? Or does he think nature has provided such a covering somewhere up in the blue? The pull of earth's gravity retains most of its atmosphere, of course, and for the same reason the puncturing of the artificial covering would have caused no noticeable immediate results in the air density within, since earth's gravity had been simulated on the moon, and had this not been done, the atmospheric pressure would have been only very gradually reduced from the normal earth air pressure artificially maintained before the puncture, to a figure corresponding to the proportionally lower pull of moon's gravity. The moon has lost its atmosphere very gradually by chemical absorption, seepage into space, etc., due to the fact that no organic activity or other source of atmospheric gases now exists to replace the gradual losses. Had earth no organic life or other source of oxygen and nitrogen supply, it also would in time lose its atmosphere. However, granting for the moment that the air on the moon would have the tendency to rush into space if not restrained by the container, it could not have done so instantly through a puncture about four hundred feet in diameter—this would be comparable to saying that a large automobile tire would be instantly and fully deflated by a pin prick. Further, assuming that the air could and did rush out instantly, Hamilton states that Howland and the turtle-men were "instantly asphyxiated." It is no difficult feat to hold one's breath five minutes without the penalty of unconsciousness, not to mention that of death. Drowning persons have been resuscitated after a much longer period has elapsed since the last respiration.

A serious error in the logic of the story lies in the fact that, assuming all these dire effects would follow the roof puncture, the turtle-men would not have been so foolish as to leave the beam unguarded, since a suicide or malcontent among themselves might at any time have thrown the switch and wiped them out. Especially would they have been careful when enemies were in their midst, even though imprisoned, and, on the very hour of their departure from the moon, it is quite unreasonable to think that every one of them would have been absent from the starting and control point until the last minute.

As I must cut this short I will give merely a brief note of some of the other flaws in the story:

1. Twenty cylinders each one hundred feet in diameter, lie at the bottom of a vertical shaft four hundred feet in diameter!

2. Carson estimates the height of an upright cylinder as three hundred feet when looking practically straight down upon it from the top of a long and relatively narrow vertical shaft!!

3. A flexible ladder of any known material which was over half a mile in length and capable of supporting the weight of two men at its extremity would be entirely too heavy to be carried by two men or transported in a canoe. Further, besides this ladder, the same canoe is supposed to carry "ammunition, tent, camping supplies," etc.!

4. When traveling at or near the speed of light an effect similar to the Doppler effect in sound (viz., a change in pitch of sound coming from rapidly approaching or receding bodies due to the increase or decrease in the number of vibrations per time unit due to speed of source of sound) would alter seriously the character of the light coming from the front or the rear, and it is highly doubtful that (assuming one could travel at such speeds and survive) anything at all could be seen. Certainly if one traveled at exactly the speed of light one could see nothing in the rear as light rays from this direction would never gain on the observer. Also those coming from ahead would be doubled in frequency, thus raising them out of the visible frequency spectrum and raising lower frequencies into visibility. Just what effect this would produce in normal vision is doubtful.

5. If the turtle-men could disintegrate matter to the extent of digging trenches about the two polar regions "scores of miles deep and wide," and also a four hundred foot shaft entirely through the moon, the disintegration of a relatively thin layer of ice over the earth's surface should have caused them little trouble.

6. The human moon-adventurers, entirely ignorant of the turtle-men's machinery, press buttons at random and get the correct controls time after time without mishap.

7. A lone man in a strange aircraft defeats and out-maneuvers many of the makers of that type of craft in their own territory and machines. In fact, the protagonists come out victors against stupendous odds in so many instances that the tale becomes highly improbable and borders on the type of popular thriller melodrama.

8. One of the men states (p. 529) on landing on the moon that the fact that the moon seems to have the same gravity as earth is "against every law of nature" and "is impossible." On just how many natural laws is gravity contingent, pray? Mechanics teaches that gravity is directly proportional to mass, and that mass depends not on volume or size at all, since equal volumes of various kinds of matter possess different masses, i.e., are of different density. The companion star of Sirius has a density two thousand times that of platinum, and therefore its gravity is two thousand times that which a sphere of platinum of the same size would possess! If the moon possessed the same density as this star its gravity would be many times that of the earth, although its size would be the same as at present. This certainly would violate no law of nature.

However, I reserve for the last my biggest objection of all, which applies to the commendatory note which the editors prefixed to this story wherein the method of reaching the moon is dubbed "plausible and logical." If such a tale is perpetrated again within the pages of this periodical I shall cancel my subscription.

Previous to writing this effusion I had intended to include a discussion of certain flaws in the theory of the time-travelling stories which are becoming all too frequent, and are apparently based upon misconceptions of the implications of

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The Most Interesting Evening I Ever Spent

UP TILL 9 o'clock the party was a complete flop. Nobody seemed to be able to get things going. Then Tom walked in. Tom's a live wire, if there ever was one.

He said he'd heard about a one man show anyone could perform with the help of a book he knew about. He had sent for that book, and said he was going to put on the show.

We thought he was joking and laughed at him, but he sat us all down in the living room, got out a pack of old playing cards, and started to do things that made our eyes pop out of our heads.

For over 2 hours he made those playing cards almost talk. What he could do with those cards just didn't seem human. After it was all over, the gang all crowded around, shaking his hand, and patting him on the back. The girls all said, "Oh, Tom! You're wonderful!" It was by far the most interesting evening I had ever spent.

I asked him how he learned it all, for I knew he didn't know a single thing about card tricks a week before. For answer he pulled out a shiny new quarter, and said that one just like it had taught him every trick he had showed us.

And it was a fact! Tom had simply enclosed a quarter with the coupon below, and gotten Walter Gibson's Famous Book of Popular Card Tricks by return mail. You, too, can entertain yourself and your friends with the 101 card tricks it teaches. No sleight of hand is necessary—no hard work to learn. Simply read the book carefully and you can do every trick in it.

And it costs only 25c! Send for it today. The demand is great, and we only have a few hundred on hand.

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I enclose 25c. (in stamps or coin) in full payment for Walter Gibson's Book of Popular Card Tricks, which, it is understood, will be sent me by return mail.

Name.....

Street & No.....

City.....State.....

the Einstein theory, but I shall not do so as this letter is now quite too long.

A. M. Tuttle, Instructor of Mathematics,
Univ. of Wis., Madison, Wis.

(This letter is so elaborate that we cannot comment upon it. We can note, however, that paragraph 8 does not clearly express the fact that if the moon had the same gravity as the earth the tides would be different from what they are now. We hope you will write us again.—EDITOR.)

Mr. Verrill Answers Mr. Amsbury

Editor, AMAZING STORIES QUARTERLY:

For some time I had been considering making humble request that you try to get a story about the old Mayas or Incas, preferably by Verrill as the most capable for such a work; so, naturally, when I saw the trend of "The Bridge of Light," I felt very much gratified. But imagine my embarrassment to discover that:

1. A date which recurs every 52 years (minus 12 or 13 days) can accurately fix a day as between 2019 and 2023 years ago;

2. A Maya authority would entertain 12 as the month co-efficient of an Ahau date—Ahau can only occur on 3, 8, 13, or 18 of any month;

3. A date 8Ahau 13Ceh occurred 90-94 B.C.—the nearest was 4/13/0084B.C. (Computations on request);

4. There was Nahua influence in the "Old Empire";

5. The Mayas had a rain-god called Chac-Mool—the figure called Chac-Mool was a definitely *Nahua* "deity" occurring in the temples of Tlaloc or of Quetzalcoatl (a literal translation of Kukulkan, "Feathered Serpent"), Gucumatz in Guatemala—incidentally a chac was a priest's assistant, ahuai chac was a rainmaking priest, and the chief god of the Lacandones is Nohochacyum or Nohochyumchac ("Great Lord Chac"), that of the Santa Cruz is Yumcanchacoob ("Lord of all the Chacs") moreover Chac-Mool was always an incense-burner, and thus not a god at all, but a priest;

6. The demon Izpuzteque (Izputeque) had wings—according to the *Aztec* "Book of the Dead" Izpuzteque had his legs "backward-bent" like those of a cock and the fiend Nextepehua (x=sh) is a flying monster who scatters ashes (maybe A. H. V. merely got his names mixed);

7. *One* passport would get one past all the dangers on the way to Mictlampa (but then V. omits all Spence omitted);

8. Mictlampawas a Maya "Hades"—Mictlampa (Mictlan, Mictolan) was the *Aztec* place of the dead; good Mayas went to Xibalba (x=sh) and the ahual xibalba was a priest who communed with the dead.

9. *Tonalamatl* was a Maya term—the older writers know no Maya term for the 260 day cycle, but Spinden ("Ancient Civilizations of Mexico") gives *Tzolkin* as the Maya. Etc.

10. A. H. V. has overworked his imagination on the "wilder" subjects again. There were many points that might have been worked up to better results. Maeterlink says, ". . . truth alone is marvelous—embellishments are the first of all to fade." This may not be strictly true, but it's good to remember. Why is it that no one offers "wild" theories about Old World stone age carvings. Because they're not so ornate? I think so.

You know the Indians were supposed to have tempered copper? Well, a bright Frenchman got a brainstorm and had some of it analyzed. It was BRONZE. Darn good bronze, too.

But it was a good point to have a bridge instead of a dog to cross the last barrier.

Clifton Amsbury,
2216 Ward Street,
Berkeley, Calif.

I have neither the time nor the space to enter into a long discussion and explanation of the Mayan date-glyphs and calendrical system, but would refer Mr. Amsbury to my book: OLD CIVILIZATIONS OF THE NEW WORLD, wherein he will find a very full and simple explanation of these matters and also a table of correllated Mayan and Christian dates, which by the way were worked out in collaboration with Dr. Joyce of the British Museum.

Regarding his comments on the Mayan divinities or gods. First, neither Mr. Amsbury, nor anyone else can be certain which gods were of Nahua and which of Aztec origin. The Mayan mythology was so complex and involved that no archeologist has yet been able definitely to identify or place many of the deities and hence they are known only by letters. The first known statue of Chac-Mool discovered was found at Chitcen Itza, but similar statues have been found from Central Mexico to southern Honduras, and no one is yet certain whether he was borrowed by the Mayas from the Nahuas or *vice-versa*. He was, it is true, identical with the Nahua Tlaloc, but neither of these gods were the same as Quetzalcoatl (Kukulcan in Mayan) the Plumed Serpent, who was god of the sky and not of rain.

Moreover, whereas Chac-Mool or Tlaloc required human sacrifices and were bloodthirsty, cruel divinities, Quetzalcoatl was a benign and gentle god and self-sacrifices were made to him.

Neither does the word "Chac" mean a priest nor a priest's assistant as Mr. Amsbury states, that is, not in the sense of a human priest; it comes nearer to "holy man" or "sacred being" than to anything else, like the Quichua "pacha" or "wira" and was applied to priests only to designate their sacred or religious character. I would also point out that Mr. Amsbury contradicts himself. In one sentence he says: "The Mayas had a rain-god called Chac Mool" and in another he says: "Chac-Mool was not a god at all, but a priest."

Referring to his criticism of the fiendish and wholly mythical monsters: Izpuzteque and Nextepehua, if I chose to make one a p[illegible]yl and another a dinosaur or *vice versa* I feel, the privilege of an author.

Taken all in all Mr. Amsbury's [illegible] sound to me like straining at a gnat [illegible]ing—well perhaps not a camel, but r[illegible] entific treatise on the Mayas. He appe[illegible] overlook the fact that an Amazing Story [illegible] amazing must be amazing, and, if one did not possess an imagination that could "run wild" now and then, there would be no amazing story.

A. Hyatt Verrill.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUG. 24, 1912. Of AMAZING STORIES QUARTERLY, published quarterly at Jamaica, Long Island, New York, for October 1, 1929.

State of New York, } ss.
County of New York. }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared T. O'Conor Sloane who, having been duly sworn according to law, deposes and says that he is the Editor of the AMAZING STORIES QUARTERLY and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, EXPERIMENTER PUBLICATIONS, INC., 381 Fourth Avenue, N. Y.; Editor, T. O'Conor Sloane, Ph.D., 381 Fourth Avenue, N. Y.; Managing Editor, Miriam Bourne, 381 Fourth Avenue, N. Y.; Business Managers, none.

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T. O'CONOR SLOANE,
Editor

Sworn to and subscribed before me this 25th day of September, 1929.
(Seal.)

Joseph H. Kraus,
(My commission expires March 30, 1931.)